MCC Indonesia Procurement Modernization Project Evaluation

Final Report

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About This Report

This report is the final evaluation of the MCC Indonesia Procurement Modernization Project.

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List of Acronyms

5-S	Shared values, structure, systems, skills, and staffing
BAPPENAS	*Badan Perencanaan dan Pembangunan Nasional* (National Development and Planning Agency)
BH	Benjamini Hochberg
CoE	Center of Excellence
EQ	Evaluation Question
ERR	Economic Rate of Return
GoI	Government of Indonesia
IRT	Item Response Theory
LKPP	*Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah* (National Public Procurement Agency)
LPSE	*Layanan Pengadaan Secara Elektronik* (Electronic Procurement Service System)
MCA-I	Millennium Challenge Account-Indonesia
MCC	Millennium Challenge Corporation
OECD	Organisation for Economic Co-operation and Development
OPD	*Organisasi Pemerintah Daerah* (Regional-Level Working Units)
PM	Procurement Modernization
PMIS	Procurement Management Information System
PPP	Public-Private Partnership
PR	Presidential Regulation
PSU	*Unit Kerja Pengadaan Barang/Jasa* (Procurement Service Unit)
PwC	Pricewaterhouse Coopers
RUP	*Rencana Umum Pengadaan* (Annual Procurement Plan)
SBD	Standard Bidding Document
SiRUP	*Sistem Informasi Rencana Umum Pengadaan* (General Procurement Plan Information System)
SPP	Sustainable Public Procurement
SPSE	*Sistem Pengadaan Secara Elektronik* (Electronic Procurement System)
UKPBJ	*Unit Kerja Pengadaan Barang/Jasa* (combined Procurement Service Unit and *LPSE*)
ULP	*Unit Layanan Pengadaan* (Procurement Service Unit)

Executive Summary

The Procurement Modernization (PM) project of the Millennium Challenge Corporation (MCC) was designed to transform the operation of the public procurement system in Indonesia by reducing existing resource inefficiency. The PM project's objective was to strengthen the implementation of the procurement function within the Government of Indonesia. It aimed to build capacity and facilitate the institutionalization of Procurement Service Units (PSUs) so that they would be resourced with systems, structures, and skilled procurement professionals. It encouraged more systematic assessments of tenders to procure required goods and services with cost efficiency, higher quality, and reduced procurement and delivery time. MCC expected that the cost savings resulting from the project, if applied to other investments, would enhance economic growth.

The National Public Procurement Agency or *Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah* (LKPP), along with several other organizations, implemented the PM project from 2013 to 2018 through the Millennium Challenge Account-Indonesia (MCA-I). It had two main activities: (1) the Procurement Professionalization Activity and (2) the Policy and Procedure Activity. The first comprised human resource development activities (e.g., procurement skills training), institutional strengthening support (e.g., training and mentoring on organizational skills and performance measurement, establishing PSUs as centers of excellence), support for framework contracting, and strengthening the Procurement Management Information System (PMIS). The second comprised guidance for public-private partnerships (PPPs) and the development of a policy framework for sustainable procurement. The projected supported a total of 44 PSUs; Phase 1 (2013-2018) engaged 29 pilot PSUs, and Phase 2 (2016-2018) engaged 15 pilot PSUs.

Abt evaluated the project using mixed methods. The qualitative approach used the 5-S framework (modified from McKinsey's 7-S framework) to analyze organizational change within PSUs related to shared values (perception about corruption), structure (permanency of PSUs), systems (procurement processes adopted), skills (staff procurement skills), and staffing (staff preference for careers in procurement). To evaluate changes along the 5-Ss and several key procurement outcomes, the evaluation used a quasi-experimental weighted difference-in-difference design that compared outcomes for Phase 2 treatment PSUs with outcomes for comparison PSUs—or those that were shortlisted in Phase 2 but not selected to receive the program's core services after weighting to look similar to the treatment PSUs. Through efforts that had nationwide reach and through PSUs that became centers of excellence (CoEs), it is possible that the comparison PSUs received some treatment at the same time, but less intensively. Data for the evaluation come from structured surveys with PSU and OPD staff at the baseline (2016) and endline (2019), semi-structured interviews with PSU staff at endline (2019), and semi-structured interviews with key stakeholders after the project ended (November 2018-January 2019). The quantitative analysis also used PMIS time series data on two tender-level final outcomes: time and cost efficiency.

Findings. The impact evaluation found evidence of positive impact of PM project's intensive activities in only a few areas. The project improved staff skills (as measured by their quiz scores on procurement processes), but absolute quiz scores remained quite low. Also, more PSUs achieved permanency as a result of the PM project. The impact evaluation found that the relative odds that a PSU was permanent increased almost nineteen-fold because of the project. However, we did not find clear evidence that the project's intensive activities increased the adoption of improved procurement processes, maturity model, e-catalogs, PMIS, or framework contracting in treatment versus comparison PSUs. Adoption of policies and procedures and PMIS increased over time, even in comparison PSUs. Some of these efforts were simultaneously promoted by nationwide policies, which can explain improved performance in the comparison PSUs. Conceivably, CoEs could have also helped improve the outcomes in comparison PSUs, but our data suggest that the majority of comparison PSUs did not receive CoE input. Overall, despite the small gains in staff skills and greater permanency of PSUs, we did not find evidence that the PM project's intensive activities improved the quality, cost, or time efficiency of procurement. We did not find evidence that these outcomes improved in the comparison group. (Note: lack of evidence does not

necessarily mean there was no impact. But we are confident that in most cases, any impact was substantively small). Findings under the 5-S framework include:

Shared values: The impact evaluation did not find evidence that the PM project's intensive activities improved staff perception of corruption. Qualitative data suggests that staff perceived greater trust and collaboration within PSUs but had mixed views on local government support of procurement reform.

Structure: The PM project led to more permanent PSU legal entities. Qualitative interviews suggest that more treatment PSUs adopted the "maturity model," a framework for PSUs to assess and develop their organizational capacities, which LKPP disseminated nationwide in 2017.

Systems: The impact evaluation did not find evidence that the intensive activities of the PM project increased the adoption of procurement policies and procedures or the use of PMIS, e-catalogs, and framework contracting. However, adoption of procurement systems, and use of PMIS improved over time in comparison PSUs also. This may be due to nationwide promotion of these new processes.

Skills: The PM project improved the procurement knowledge of PSU staff by five percent. The qualitative survey responses also suggested that staff thought the project provided high quality training and mentoring.

Staffing: The impact evaluation did not find evidence that the PM project improved the number of permanent staff, their perceptions about the desirability of procurement careers, or their likelihood of continuing in procurement positions. Interviews suggest perceptions of low advancement opportunities, low pay, and high workloads.

Final procurement outcomes. Through organizational changes along the 5-S framework, the project aimed to improve cost, time efficiency, and quality of procurement outcomes. There is little evidence that the PM project impacted these outcomes, whether measured as staff perception of improved procurement quality; time efficiency; or cost (economic) efficiency.

Time Efficiency: The impact evaluation did not find evidence that the intensive activities of the PM project increased time efficiency in terms of average number of days to review bids, according to tender-level data.

Cost Efficiency: The impact evaluation did not find evidence that the PM project increased the difference between the budgeted and actual amounts for each tender, according to tender-level data.

Quality of Outcomes: The impact evaluation did not find evidence that the PM project improved perceptions of the quality of procurement outcomes or the bid process.

The evaluation results suggest that while the PM project's focus on improving staff skills and PSU organizational capacity resulted in directly related outcome improvements—a marginal but statistically significant improvement in staff skills and PSU greater permanency—the PM project did not result in many improved outcomes in Phase 2 PSUs relative to the comparison PSUs.

1. Introduction

1.1. Country Context

Indonesia spends more than 30 percent of its national budget and around 60 percent of foreign development assistance on procurement of goods and services on behalf of government agencies (Center for International Private Enterprise 2011). Historically, the country's procurement system has been marred by corruption and inefficiency, which contributes to crumbling infrastructure, delayed government spending, and weak performance on a range of social indicators (Harvard Kennedy School 2010). Comprehensive procurement reforms followed the demise of the New Order regime in 1998 as part of a broader effort to improve Indonesia's public financial management system (Wescott 2008). This has created opportunities for a more competitive, efficient, and transparent procurement system. The procurement system in Indonesia has benefited from these opportunities through various institutional-organizational reform initiatives (including referring to procurement as a strategic function in the government's mid-term plan 2015-2019). Nevertheless, public procurement has remained problematic due to legal inconsistencies, weak state capacity, and insufficient enforcement of its regulatory framework. Some changes have created new incentives for procurement-related corruption. For example, direct elections of politicians have created new financial pressures and often allow private sector interests to sway public procurement processes in their favor. Decentralization of political and fiscal power has also exposed the varying capacities of local governments to implement reforms across Indonesia and introduced a high degree of variation into the public procurement landscape.

The Indonesia Procurement Modernization (PM) project was part of the Millennium Challenge Corporation's (MCC's) five-year, $474 million Indonesia Compact, which encompassed three projects in health and nutrition, sustainable land and energy management, and procurement modernization. The PM project spent $75 million of the overall Compact and was implemented between April 2013 and April 2018. The PM project was undergirded by Presidential Regulation (PR) No. 80/2003, which created a legal basis for the establishment of a National Public Procurement Agency (*Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah* (LKPP)). Along with PR No. 54/2010 on Public Procurement, the decree mandated the establishment of Procurement Service Units (PSUs) or *Unit Layanan Pengadaan* (ULPs), which are some of the main beneficiaries of MCC investments. PSUs conduct public procurement procedures on behalf of the government's technical departments/spending units, called Regional-Level Working Units, or *Organisasi Pemerintah Daerah* (OPDs).

The PM project aimed to further reforms in the procurement system to improve efficiency in the procurement of goods and services, leading to time and cost savings, which were expected to ultimately enhance economic growth. To accomplish these goals, the PM project implemented multiple activities to facilitate organizational and systems changes in procurement, strengthen PSUs and LKPP, and make a career in procurement attractive (see Section 2).

1.2. Report Objective

This report presents findings from the endline impact evaluation of the PM project, conducted over one year after the project ended to capture impacts that may have taken time to mature. It assesses the extent to which the PM project led to improvement in five key components of organizational change (the 5-S framework of organizational change—shared values, structure, systems, skills, and staffing) and, consequently, the extent to which it improved efficiency and quality of procurement. The report also presents an overview of the Compact (Section 2); a literature review (Section 3); a description of the evaluation design (Section 4); and evaluation findings (Section 5). Volume II presents full regression results (Annex A), a Benjamini-Hochberg (BH) table with adjusted critical p-values to account for multiple comparisons (Annex B), descriptive statistics (Annex C), summary statistics characterizing the sample (Annex D), the survey instrument (Annex E), and the qualitative interview guides (Annex F).

2. Overview of the Compact and the Interventions Evaluated

2.1. Compact Project Logic

The PM project was designed to accelerate Indonesia's procurement reform agenda and transform operation of its public procurement system. Procurement reform has the potential to reduce resource inefficiency and save resources for other investments that can contribute to the country's economic growth. In this context, the project's objective was to strengthen the implementation of the procurement function within the Government of Indonesia (GoI) by building capacity and facilitating the institutionalization of PSUs, equipping them with systems, processes, and skilled procurement professionals per PR No. 54/2010 and PR No. 16/2018. This was expected to result in efficiency improvements for procured goods and services, ensuring that their quality satisfies public need and that they are delivered to the public as planned. The logic of the project was that these improvements would lead to more efficient provision of goods and services, leading to budgetary savings that could be applied to other productive investments, potentially enhancing economic growth.

2.2. Project-Level Activities

The project activities intended to improve staff and institutional capacity, enabling higher quality assessment of the services and goods needed, greater competition, lower costs and higher quality services and goods, and reduced procurement and delivery time. The project logic shown in Exhibit 2-1 depicts a causal path leading from the activities associated with the inputs to the project objectives. The project provided services to both improve the skills of procurement professionals and strengthen procurement policies, institutions, and systems. The evaluation used the 5-S framework to classify these organizational changes. According to the project logic these organizational changes—improved staff skills and strengthened procurement organizations and systems—would ultimately contribute to more cost and time efficient procurement processes and better quality procurement outcomes.

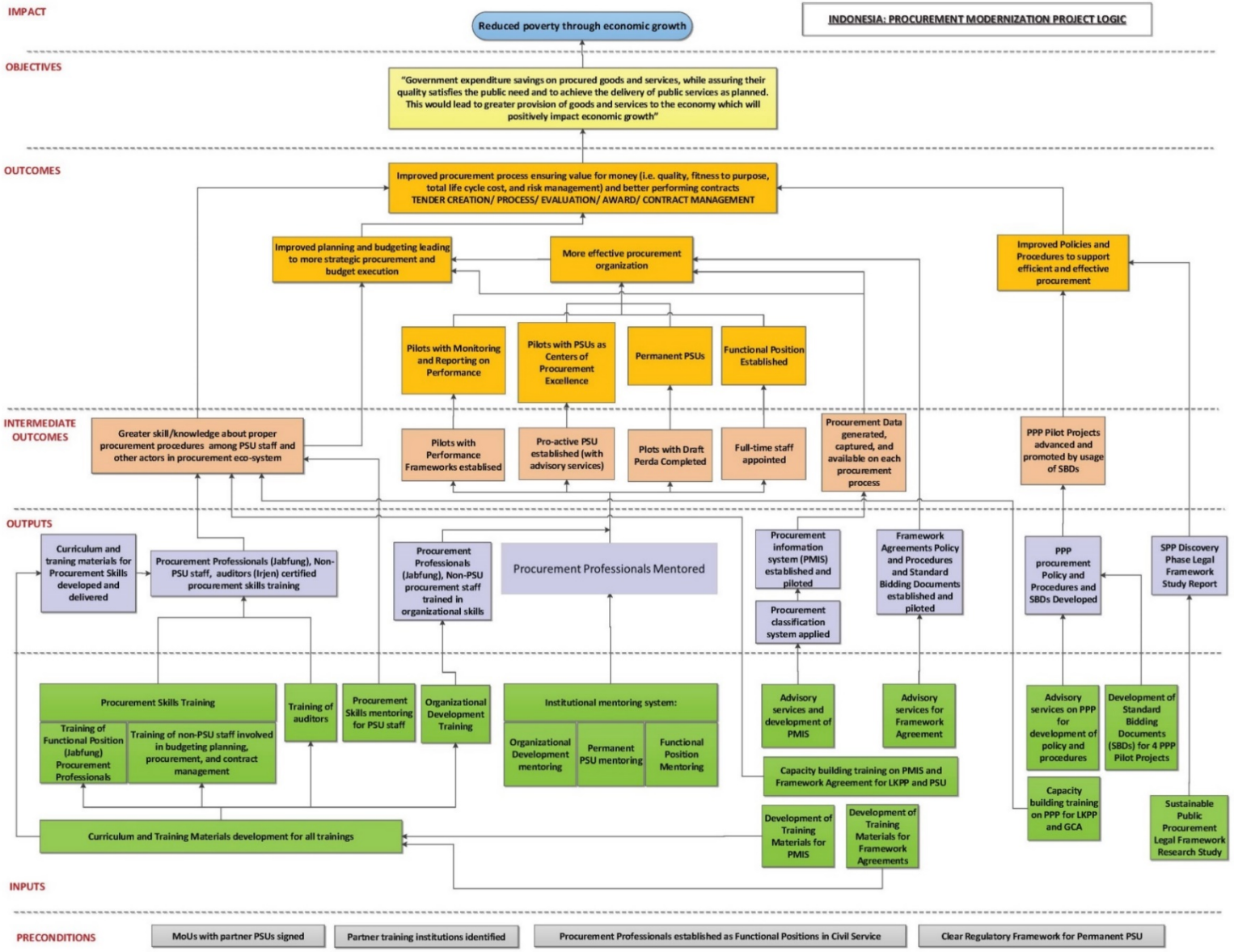
2.3. Link to Economic Rate of Return and Beneficiary Analysis

MCC typically calculates a projected economic rate of return (ERR) for each of its projects. The ERR characterizes the projected costs and benefits of the project and discounts them to a net present value to determine whether the project is likely to generate positive economic benefits above a pre-specified threshold. For this project, some procurement outcomes were designed to lead to cost savings, which would mean they are directly related to the project's ERR. The MCC economists completed an ERR only at the end of the project; the evaluation compared its findings with that of this ERR (Section 5.2). The project's direct beneficiaries were the PSU and LKPP staff, while the broader beneficiaries were the governments that the PSUs supported. Insofar as the PM project was expected to lead to cost savings and the rechanneling of those savings into economic growth programs, all Indonesians were potential indirect beneficiaries.

2.4. Project Participants

PM project participants were both organizations and individuals. At the organizational level, the project supported 44 PSUs at several levels of government: city, district, institution, ministry, and province. These PSUs were engaged in the project in two phases. In the first phase, the project engaged 29 demonstration PSUs for the full project period (2013-2018). In the second phase (2016-2018), the project supported an additional 15 PSUs. Individual staff from participating PSUs and some additional public sector staff received organizational and procurement skills training. Staff in comparison PSUs also received some project inputs through changes that had a nationwide impact—such as the introduction of e-procurement and PMIS—and through support from treatment PSUs that were Centers of Excellence (CoE). The evaluation only measures the impact of intensive treatment provided to the treatment PSUs. Our baseline report describes in detail how these organizational and individual participants were selected (Abt Associates 2017).

Exhibit 2-1. Project Logic



2.5. Geographic Coverage

In addition to working with PSUs at various levels of government and those involved in different types and volumes of procurements, the PM project selected a geographically diverse set of PSUs with the aim of establishing models of best practices across the country. The selected PSUs represented each major island and region (Sumatra, Kalimantan, Java, Sulawesi, Papua, Maluku, East Nusa Tenggara, and West Nusa Tenggara).

2.6. Implementation Summary

The LKPP and other organizations implemented the PM project through the Millennium Challenge Account-Indonesia (MCA-I). The project involved two main activities: (1) the Procurement Professionalization Activity and (2) the Policy and Procedure Activity. As shown in Exhibit 2-2, each main activity included several sub-activities. The exhibit shows final activities, not activities that changed during implementation; on the whole, changes across the sub-activities were relatively small. The Public-Private Partnership (PPP) activity changed the most, as it was substantially expanded from a policy review activity to a larger sub-activity that included a training program, pilots, and regulation reform. The Sustainable Public Procurement (SPP) activity ended after Phase 1, as MCA did not request the additional two optional phases.

Exhibit 2-2. PM Project Activities

Sub-Activities	Detailed Activities	Key Consultants
Procurement Professionalization Activity: $44.657 million		
Human Resource Development Activity	• Provided procurement skills training • Established training CoEs • Provided ongoing procurement skills mentoring • Delivered auditor training • Developed training database • Developed knowledge center • Produced procurement clinics • Communicated good news stories, selected procurement champions, and developed Internet forum	• Booz Allen Hamilton
PSU Institutional Strengthening Activity	• Delivered performance measurement and management training • Developed CoEs that provide training and mentoring; selected and trained individual mentors within CoE PSUs; socialized CoEs • Through PSU institutional development "sistering" program, facilitated peer-to-peer learning between pilot and non-pilot PSUs • Developed and delivered Indonesian procurement maturity model • Provided technical assistance and mentoring to establish permanent PSUs and permanent staff • Trained pilot and non-pilot PSU staff in organizational skills • Implemented legal protection pilot • Established Jakarta Forum for procurement policy dialogue among national stakeholders	• Pricewaterhouse Coopers (PwC) • Bandung Trust
Framework Contracting Program	• Provided training on knowledge and skills needed to complete and manage framework agreements and contracts • Provided advisory services and technical support on framework agreements and contracts • Established framework agreements • Developed and institutionalized rules and procedures for framework contracting • Piloted the fraud filters	• PwC

Sub-Activities	Detailed Activities	Key Consultants
Procurement Management Information System (PMIS)	• Provided advisory services and developed the PMIS • Developed fraud and integrity filters • Promoted PMIS data systems, including data warehouse, reporting, and business intelligence system • Promoted e-catalog software, fraud filters, and Electronic Procurement Service System (*Layanan Pengadaan Secara Elektronik* (LPSE)) cloud • Promoted general procurement planning/General Procurement Plan Information System (SiRUP)[a] • Promoted electronic contract management • Provided other support including procurement classification, strategic information technology planning, and procurement knowledge center	• European Dynamics Luxembourg SA/ European Dynamics SA PT Mitrais • PT Berca Hardayaperkasa Consultants
Policy and Procedure Activity: $3.593 million		
Public-Private Partnership	• Development of a practical toolkit with templates and model documents for procurement planning and project preparation • Training program • Gap analysis • Assistance with Regulations of the Agency Head • Piloting and establishment of standard bidding documents (SBDs)	• Senior Adviser to the PPP Sub-Activity, Dr. Azadeh Kopp-Moini • PwC
Sustainable Public Procurement (SPP)	• Undertook assessment for SPP, including stakeholder consultation, regulatory review, and market research study • Established procedural framework for an SPP policy • Developed SPP training package	• KPMG • Procurement specialist advisors

Sources: MCA-I 2018a, 2018b, 2018c; Ray 2018; Mitchell-Turner 2018.

[a] SiRUP is an LKPP-developed application for the publication of the Annual Procurement Plan (RUP) to the GoI. It is used to publish the RUP of each institution to the vendor community and the Indonesian public.

3. Literature Review

3.1. Summary of the Existing Evidence

3.1.1 Background Context in Indonesia

Institutional reforms and political and fiscal decentralization have formally increased transparency and accountability in Indonesia while creating more competitive relations between political elites. Incumbent turnover in both executive and legislative elections is comparatively high, especially at the local level (Buehler and Nataatmadja 2019). This theoretically bodes well for any procurement reform effort, as it may cause elites to realize that the electorate can vote them out of office if they do not live up to reform promises. On the other hand, clientelism, elite inclusion, and rent-seeking remain (Mietzner 2007; Slater 2004; Dick and Mullholland 2010). The bureaucratic culture of Indonesia is defined by personal (rather than impersonal) decision making based on the rule of law. Despite strong reform efforts (Buehler 2011), corruption is rife in Indonesia's bureaucracy. Democratization and decentralization have deregulated the highly structured New Order patronage networks, and introduced new costs for politicians (McLeod 2000). Many bureaucratic posts need to be bought (Kristiansen and Ramli 2006), and then the bureaucrats resort to corruption in order to repay the loans they took out to buy themselves the post. Likewise, bureaucratic recruitment is not based on needs, and promotions are not based on merit (Buehler 2011), giving both bureaucrats and politicians incentives to engage in collusive practices (Silitonga et al. 2015). Recent studies show this has led to new dynamics in public procurement collusion (Aspinall and Berenschott 2019).

This procurement-related corruption and collusion in Indonesia has been a main reason for the leakage of public funds and the implementation of development projects of inferior quality. Losses to the state due to corruption and collusion amounted to around 35 percent of the total value of procurement projects scrutinized by the Corruption Eradication Commission (*Komisi Pemberantasan Korupsi*) between 2005 and 2009 (*The Jakarta Post* 2009). Similarly, the National Development and Planning Agency (BAPPENAS) found that only around 30 to 40 percent of all government institutions adhere to procurement regulations (Rahardjo 2007). Ninety-four percent of the 2,100 procurement-related complaints that the Corruption Eradication Commission received in 2009 referred to failures to hold open tenders. Another study showed that because of Indonesia's weak procurement institutions, commercial diplomats from the European Union rely heavily on informal procedures and personal networks when lobbying for public procurement contracts (Bondarouk and Ruël 2012).

There have been several additional donor- and government-led procurement reform projects. In 2014, the World Bank, in collaboration with the Asia Foundation, conducted a study on the impact of e-procurement on the performance of subnational administrative units (Sacks et al. 2014). World Bank public expenditure reviews at both the national and subnational levels concluded that Indonesia's main challenge was no longer to transfer more resources to local governments, but to ensure that such resources are spent effectively and efficiently (World Bank 2007 and 2012). The last comprehensive national public expenditure review recommended the introduction of performance-based budgeting systems, improved linkages between budgeting and development planning, and a stronger procurement and auditing system to increase transparency and predictability in public expenditure processes (World Bank 2007). In addition to Indonesia-specific suggestions, existing quantitative evidence on the introduction of e-procurement suggests that procedural and other reforms may improve procurement outcomes (Lewis-Faupel et al. 2016). This evidence from Indonesia and elsewhere supported the need for the PM project.[1]

[1] In contrast, the Organisation for Economic Co-operation and Development (OECD) concluded in 2007 that the Indonesian public procurement system matched with more than 60 percent of the OECD baseline indicators, leading the organization to conclude that "public procurement risks in Indonesia are currently perceived to be average" (OECD/DAC 2007). This contradictory assessment of Indonesia's procurement environment is emblematic of the complex situation on the ground.

3.1.2 Results of Government Reforms in Indonesia

E-procurement was officially mandated in PR No. 4/2015. Since then, many provinces and districts have endorsed the government-promoted LPSE, making e-procurement the most widely adopted procurement reform initiative prior to the PM project (Huda and Yunas 2016). There have been several studies in recent years on e-procurement's impact in jurisdictions where it was adopted. A comprehensive study of Indonesian jurisdictions found no evidence that the use of e-procurement lowered the prices paid by governments, which aligns with other critical studies on the impact of e-procurement (Hidayat 2015; Mutiarin 2015; Nurmandi and Kim 2015). However, one study found that the quality of companies bidding for contracts increased (Lewis-Faupel et al. 2016) with e-procurement. Another recent study showed that hospitals using an e-catalog in the procurement process lowered their drug expenses significantly (Suliantoro et al. 2016).

There is considerable variation in the adoption of other procurement reform initiatives. Many procurement reform initiatives in Indonesia began at the local level. Surabaya, for instance, was considered a pioneer in local procurement reform across Indonesia for many years. Yet overall the standardization of procurement regulations that has been occurring at the national level since 1998 has not been adopted to a similar degree at the subnational level (Zahra et al. 2017). By 2012, only one province and 27 district governments had adopted standard bidding documents, removed barriers for bidders, or crafted and implemented standard operating procedures for local PSUs (Rahman et al. 2012a). Local capacity building in public procurement seems to occur in a more balanced manner, particularly with regard to general procurement training in preparation for procurement certification, and e-procurement training on how to operate and maintain the LPSE system. Rahman et al. (2012a) found that the overall number of procurement-certified staff has increased at both the provincial and district levels across Indonesia. Still, many subnational governments seem to lack a comprehensive strategy to increase the number of procurement-certified staff (Rahman et al. 2012c).

Provinces and districts also embraced organizational reform initiatives in an uneven manner prior to the PM project. As of 2012, 27 percent (9/33) of all provinces and 26 percent (130/497) of all districts had adopted PSUs (Rahman et al. 2012c). The establishment of PSUs was slightly higher in districts with increasing procurement volumes (Rahman et al. 2012d). Finally, a recent study found that despite the considerable power that aforementioned political and fiscal decentralization initiatives have bestowed upon local government heads—such as governors, district heads, and mayors—they were not really reform drivers in any of the localities examined. In most cases, when governors or district heads were replaced, the procurement reform initiatives continued (Rahman et al. 2012b).

To summarize, the literature on procurement reform initiatives in Indonesia points to considerable historical variance in the adoption of procurement reforms both between and within administrative layers. The uneven enforcement of procurement regulations at a subnational level, differences in leadership styles, variance in levels of political will, and tensions within the bureaucratic apparatus are all potential explanations for the fragmented procurement reform landscape in Indonesia.

3.2. Evidence Gaps Filled by this Evaluation

The literature lacks a rigorous impact evaluation that compares locations where reforms have been implemented with places without such reforms. Most recent studies on procurement reform in Indonesia and worldwide are not quantitative, have narrowly focused on e-procurement, and have included a limited range of procurement outcomes, rather than considering broad public procurement reform across a country. The addition of this rigorous, country-wide impact evaluation of the PM project will help stakeholders understand the results of the many procurement reform initiatives underway, as well as the broader organizational and system contexts for these reforms.

4. Evaluation Design

In this section, we describe the evaluation design, the evaluation questions, the study sample and data sources, the evaluation's timeframe, and the qualitative and quantitative methodologies.

4.1. Overview of Evaluation Design

The impact evaluation uses mixed methods with three primary approaches to answer the key evaluation questions: weighted difference-in-difference quasi-experimental design, descriptive analysis, and qualitative analysis. We describe each approach in detail in Section 4.3. We conducted a baseline in 2016, before the program began implementation with Phase 2 PSUs, and an endline in 2019, over one year after the project ended to allow time for the project's impact to mature.

Because the project focused on improving staffing and institutional capacity, which are key tenets of organizational change, the team classified the evaluation questions along its 5-S framework for organizational change. The 5-S framework is a simplified version of the 7-S McKinsey model, positing that organizational change depends on the interrelationships between organizational elements (Waterman, Peters, and Phillips 1980). The key organizational elements are structure, systems (formal and informal procedures), skills (employee skills and competencies), staff (employees, attitudes, motivations), and superordinate goals (or shared values). The framework's components, as applied to the PM project, are:

Shared values: Influence of culture and shared values on project implementation and the influence of the project on procurement culture and shared values like integrity and professionalism.

Structure: Project's impact on moving the PSUs to the desired structure, such as making them permanent and giving them independence.

Systems: Project's impact on adapting and adhering to procurement systems and e-procurement processes.

Skills: Project's impact on training staff and their proficiency

Staffing: Project's impact on gender equity in staffing, and staff who are permanent and functional

4.2. Evaluation Questions

In this section, we first outline the relevance of the evaluation. Second, we present the evaluation questions, key outcomes, and how those relate to the program logic.

4.2.1 Country-specific and International Policy Relevance of Evaluation

The evaluation seeks to establish evidence on the possible effects of an intervention designed to modernize public procurement—effects on cost savings, performance in the procurement process, and corruption. Previous MCC programs on reducing corruption in public procurement have been implemented in Paraguay, Uganda, and Kenya and have generated interest in the potential of these programs to achieve broader results. However, they were Threshold Programs and relatively smaller in magnitude than the $50 million PM component of the Indonesia Compact. The Indonesia PM project is the first to try to achieve results at a national scale. The impacts of the PM project evaluation may have implications for the design of future MCC programs, for example in the Philippines.

4.2.2 Key Outcomes Linked to Program Logic

The evaluation questions are designed to test the PM project's theory of change. The Abt team finalized the list of questions through a consultation process with MCC in Washington and with MCA-I, MCC, and

contractors in Indonesia through a stakeholder workshop. The Abt team ensured that the final evaluation questions covered the full scope of program activities and were important to implementing organizations.

The evaluation questions in Exhibit 4-1 are categorized according to whether they relate to shared values, structure, systems, skills, and staffing, or measure final outcomes. The latter questions focus on assessing program implementation and changes in final outcomes. The exhibit also specifies the outcome indicators used to answer the question and whether the evaluation considered them primary or secondary outcomes.

Exhibit 4-1. Evaluation Questions, Links to Project Logic, and Outcomes

Question	Relation to Project Logic	Key Outcomes
 1. Shared Values		
a. Are there any issues related to the political economy (or other aspects) of the procurement system and its actors not addressed by the project that may have impacted the project's ability to achieve its intended results?	The overall goals of the project and whether there were political economy facilitators and barriers to project success	Perceptions of political economy issues or other barriers to project success
b. Did the project result in a change in culture or shared values?	The project's goal of reducing corruption and increasing transparency in public procurement	Primary outcome Perceptions of corruption and transparency in PSUs Secondary outcomes Perceptions of political support Perceptions of trust and collaboration
 2. Structure		
a. What types of organizational or operational changes are taking place at the PSU level?	Whether changes are occurring along the dimensions outlined in the program logic as a result of the intervention, such as establishing performance frameworks	Primary outcome PSU permanency Perceptions of authority, independence, and coordination with OPDs
b. Have PSUs adopted the Maturity Model (a set of self-assessment and development tools) as an approach to supporting their organizational development goals?	Inputs and outputs in the program logic	Secondary outcome Adoption of maturity model
 3. Systems		
a. What types of procedural changes are taking place in the conduct of procurements?	The intermediate outcome of "[g]reater skill/knowledge about proper procurement procedures among PSU staff and other actors in procurement system"	Primary outcome. Adherence to best practices in procurement. Involvement of PSU in procurement process
b. What was the quality of policies and procedures developed by the project (e.g., PPPs)?	Program inputs in the project logic	Quality of policies and procedures developed by the project

Question	Relation to Project Logic	Key Outcomes
c. Are there changes in policies, procedures, or otherwise that could lead to quality improvements in ultimate procurement (contract) outcomes? How so?	Multiple points in the project logic, including the high-level outcome of generating an improved procurement process ensuring value for money and quality	Secondary outcome. Adherence to best practices in procurement related to quality improvements
d. Are there changes in policies, procedures, or otherwise that could lead to savings (financial or total lifecycle) in government procurements? How so?	Multiple points in the project logic, including the high-level outcome of generating an improved procurement process ensuring value for money and total lifecycle cost	Secondary outcome. Adherence to best practices in procurement related to cost savings
e. Are PSUs using e-catalog for standard purchases?	Inputs and outputs relating to the e-catalog and framework agreements in the project logic	Primary outcome. Use of e-catalog
f. Are PSUs using the lifecycle PMIS?	Inputs and outputs relating to the PMIS in the project logic	Primary outcome. Use of PMIS
g. What was the quality of PMIS?	Inputs and outputs relating to the PMIS in the project logic	Primary outcome Quality of PMIS
h. Has the PMIS contributed to changes in procurement planning or implementation?	Inputs and outputs relating to the PMIS in the project logic, and how these inputs and outputs lead to the higher-level outcomes delineated in the project logic, such as more-effective procurement organization and improved planning and budgeting	Secondary outcome. Contribution of PMIS to changes in procurement planning or implementation
i. Does the design of PMIS meet the needs of the PSUs and other procurement actors?	Inputs and outputs relating to the PMIS in the project logic, and how these inputs and outputs lead to the higher-level outcomes delineated in the project logic, such as more-effective procurement organization and improved planning and budgeting	Secondary outcome. Quality of design of PMIS relative to needs of PSUs and other procurement actors
j. Have PSUs developed their own framework contracts?	Inputs and outputs relating to the e-catalog and framework agreements in the project logic	Primary outcome. Development of framework contracts
k. Have PPPs been conducted in accordance with the policies and procedures developed by the project?	Inputs and outputs relating to PPPs in the project logic	Primary outcome. Development of PPPs and conformity to best practices recommended by the project
l. Has there been an increase in PPP transactions?	Whether or not there have been more "PPP Pilot Projects advanced and promoted by SBDs"	Secondary outcome. PPP transactions
4. Skills		
a. Are the skills/knowledge emphasized in the training spreading within the PSU? How so? b. Has the procurement knowledge and skill of trainees improved?	The intermediate outcome of "[g]reater skill/knowledge about proper procurement procedures among PSU staff and other actors in procurement eco-system"	Primary outcome. Skills and knowledge of procurement
c. What was the quality of training and mentoring?	Quality of program inputs, in particular training and mentoring, and their effectiveness in achieving desired outputs and outcomes	Secondary outcome. Perceptions of quality of training and mentoring
5. Staffing		
a. Are staff now permanent staff?	Program intermediate outcome of "[f]ull-time staff appointed"	Secondary outcome. Share of staff made permanent
b. Do staff seem committed to and engaged in pursuing a procurement career path?	Longer-term impact of the program, as the trained staff need to be committed to pursuing a procurement career path in order to have an impact on practices within treatment PSUs	Primary outcome. Commitment to procurement career

Question	Relation to Project Logic	Key Outcomes
c. Are trained or "permanent" staff retained?	Longer-term impact of the program, as the trained staff need to be retained in order to have an impact on practices within treatment PSUs	Secondary outcome. Staff intend to stay in procurement position
d. Do staff feel more supported administratively and legally?	Procurement eco-system that the evaluation team feels is a precondition for effective practice of procurement	Primary outcome. Self-reported administrative and legal support
e. Was there a gender inclusive strategy for recruiting procurement staff?	Nature of the implementation of the appointment of full-time staff in the project logic	Secondary outcome. Number of female staff Perceptions of gender inclusiveness of recruiting
1. Overall Evaluation Questions		
a. Were the Activities/Sub-Activities implemented as designed?	Whether the program inputs were implemented as originally conceived	Fidelity to design
b. What were the implementation challenges and successes?	(Directly related)	Implementation challenges and successes
c. Is there evidence that the interventions have resulted in the outcomes outlined in the project logic?	(Directly related)	High-level outcomes in project logic
d. Was the set of activities designed the right or most strategic intervention for the Indonesian procurement context or to improve Indonesian government procurement?	(Directly related)	Right or most strategic intervention for Indonesian context
e. Has framework contracting/e-catalog resulted in time and/or cost savings?	(Directly related)	Primary outcome. Cost savings as measured by difference in budget amount and actual bid value; and perception about economic efficiency (cost efficiency)
f. Is there evidence for cost savings in the program PSUs?	High-level outcome of "[i]mproved procurement process ensuring value for money…"	Primary outcome. Cost savings as measured by difference in budget amount and actual bid value; and perception about economic efficiency (cost efficiency)
g. Is there evidence for cost savings in the program PSUs?	High-level outcome of "[i]mproved procurement process ensuring value for money…"	
h. How has budget absorption [execution] in the PSUs changed over time?	Whether there has been "[i]mproved planning and budgeting leading to more strategic procurement and budget execution"	Secondary outcome. Budget absorption
i. Are there detectable improvements in budget execution and efficiency of procurement execution in the PSUs and associated spending units?	an outcome in the project logic, which is "[i]mproved planning and budgeting leading to more strategic procurement and budget execution"	Primary outcomes. Procurement efficiency as measured by satisfaction with procurement quality. Time efficiency (time savings) as measured by total time taken to complete procurement; perception about time efficiency. Secondary outcomes. Satisfaction with bid quality

4.3. Methodology

We used a mixed methods impact evaluation, a qualitative analysis, and three primary quantitative approaches to answer the evaluations questions, including a quasi-experimental impact evaluation using weighted difference-in-differences. Exhibit 4-2 presents the evaluation questions by these four approaches, including the data sources.

Exhibit 4-2. Evaluation Approach by Questions

Evaluation Approach		Data Source	Evaluation Questions
Qualitative analysis	Qualitative analysis and qualitative synthesis	Semi-structured interviews with PSU, OPD staff, and project implementation staff, and monitoring data.	Shared values (1a and 1b); Structure (2a and 2b); Systems (3a; 3b; 3c; 3d; 3e; 3f; 3g;3h; 3i;3j, and 3k); Skills (4a; 4b; and 4c); Staffing (5a; 5b; 5c; 5d; and 5e); Overall performance (6a; 6b; 6c; 6d; 6e; 6f; and 6g)
Quantitative analysis	Weighted difference-in-difference (interrupted time series)	Tender-level PMIS data from 2015 to 2018 from Phase 2 treatment and comparison PSUs.	Systems (3c and 3d); Overall performance (6e; 6f; and 6h)
	Weighted difference-in-difference (cross-section)	Structured surveys with PSU and OPD staff from Phase 2 treatment and comparison PSUs at baseline and endline.	Shared values (1b); Structure (2a); Systems (3a; 3c; 3d; 3e; 3f; 3j, and 3k); Skills (4a and 4b); Staffing (5a; 5b; 5c; 5d, and 5e); Overall performance (6c; 6e; 6f; 6g; and 6h)
	Descriptive analysis	Structured surveys with staff in Phase 2 PSUs.	Structure (2a); Skills (1c)

4.3.1 Quantitative Methods

The quantitative analysis uses a quasi-experimental design to analyze both tender-level and PSU-level data from PSU and OPD staff. Both analytical methods compare outcomes in the Phase 2 PSUs that directly received the program (the treatment PSUs) with the PSUs that were shortlisted in Phase 2 by MCA-I but not selected to receive the program's core services (the comparison PSUs). An important caveat about the comparison PSUs is that all PSUs in the country could have been impacted by reforms promoted by the PM project, although not all at the same level of intensity (Abt Associates 2019a). The treatment PSUs received more direct and intensive program inputs than the comparison PSUs. Even so, this means that the endline assessment is not a measure of differences between any treatment and no treatment, but rather a comparison of different levels of treatment. This could lead to attenuation in the estimates of the total impacts of the PM project activities.[2]

The endline survey gathered information on the treatment received by the PSUs. Finally, the project's core design was to develop Phase 1 and Phase 2 PSUs as centers of excellence (CoEs) that would set examples for other PSUs and also provide some training. Later in the project a sistering program was also developed to promote mentorship of non-treatment PSUs. If the project was successful it could mean that Phase 2 comparison PSUs also improved their outcomes because of the support from CoEs. To the extent that this approach was successful, our results would only measure the incremental impact of the intensive activities of the program. To understand the degree to which comparison PSUs received treatment, we included interview questions to understand if the comparison PSUs received any support from other

[2] Another challenge is that we could not randomly assign treatment levels, and can only model selection on observables. To the extent that unobservable characteristics drive positive selection into more intense treatment – for example, perhaps PSUs that already had local level reform initiatives underway were more likely to be involved in the project – we may overstate impacts.

PSUs. Our analysis found that only 1 out of 9 comparison PSU received such support. We conducted a robustness check on our findings by dropping this PSU from our analysis.

Weighting. The quasi-experimental design relies on ensuring that, other than treatment exposure, the comparison group does not systematically differ from the treatment group on factors that influence outcomes. As described in the design report, the treatment group consisted of the 12 non-ministry PSUs that were Phase 2 PSUs.[3] The comparison group consisted of 10 PSUs that the MCA-I shortlisted but did not select for treatment (Abt Associates 2016). As discussed above, the criteria used by the PM project to select the treatment PSUs included, among other elements:

- Institutional permanency,
- PSU procurement spending,
- Proximity to Jakarta, and
- Leadership commitment.

To account for these baseline differences between the treatment and comparison groups, the evaluation used data on baseline characteristics on these measures to assign analysis weights to PSUs in the comparison group. Effectively, the comparison PSUs that "looked like" treatment PSUs along these criteria got a larger weight; this step was completed as part of the interim evaluation report (Abt Associates 2019b). The analysis weights used predicted probabilities of being selected for the project from a logistic regression with a treatment dummy as the dependent variable, regressed on baseline characteristics of the PSUs that were closest to the factors that influenced their selection by the PM project. Exhibit 4-3 lists baseline characteristics that capture these selection criteria, which were used to estimate the propensity model.

Exhibit 4-3. Baseline Characteristics

PSU Selection Criteria	Baseline Characteristic
Institutional permanency	Dummy of whether the PSU has permanent status
Total PSU procurement spending	Average expenditure on tenders ($/PSU) Average number of bidders per tender (numbers/PSU)
Proximity to Jakarta/other pilot PSUs	Distance to Jakarta (km)
Leadership commitment	Whether the PSU has a set of standard operating procedures

Using estimates of predicted propensity of being selected for treatment, p, each treatment PSU received a weight of 1, and comparison group PSU received a weight of $p/(1-p)$ (Nichols 2007 and 2009). We adjusted all primary survey results to account for multiple comparisons within the 5-S categories as described in Exhibit 4-3.

Data

The data for the quantitative analysis come from two sources: (1) baseline and endline surveys of PSU and OPD staff and (2) tender-level time series data from the PMIS on final procurement outcomes.

Survey data. The first quantitative data source is the PSU-level and associated OPD-level data gathered during baseline and endline using structured surveys of PSU and OPD staff. This survey instrument contains 10 modules and covers a broad range of topics as described in the evaluation design report (Abt Associates 2016). The survey instrument is included in Annex E, Volume II. The baseline survey was conducted in July and August 2016. The endline survey, initially scheduled to take place in July and

[3] Three ministry PSUs were excluded from the sample due to lack of comparability with other PSUs.

August of 2018, was administered between August and September 2019, over one year after the project's end. Following MCC recommendations, this was postponed by at least one year after the close of the Compact in consideration that procurement reform may take time to influence procurement outcomes.

Surveys were conducted with staff from treatment and comparison PSUs and OPDs. The baseline survey only targeted Phase 2 PSUs and OPDs while the endline survey also included a small sample of Phase 1 PSUs to inform the qualitative analysis.

Exhibit 4-4 provides the sample sizes at both baseline and endline. The sample sizes are disaggregated by comparison and treatment group and by Phase 1 and Phase 2 respondents. We show the number of surveyed respondents and the number of PSUs and OPDs where we administered surveys. Because some respondents were employed at both the PSU and the OPD, we show the numbers for those respondents separately in Exhibit 4-4.

At the baseline, we surveyed 426 staff at 22 Phase 2 treatment and comparison PSUs and associated OPDs. At endline, we surveyed 658 staff at 25 Phase 2 PSUs and 22 associated OPDs. Also at endline, we surveyed an additional 40 respondents at 20 Phase 1 PSUs (2 respondents at each PSU; see Section 4.3.2 for detail) (see Exhibit 4-4).

The number of respondents at Phase 2 PSUs was similar across baseline and endline, with approximately the same number of managers and staff surveyed. At endline, the total number of respondents at Phase 2 OPDs was larger than at baseline.[4] Fewer respondents reported working at both a PSU and an OPD at endline, particularly in the treatment group. This change may be a reflection of the increase in the number of permanent staff at the procurement units, which reduced reliance on staff from either PSUs or OPDs.

Of all the employees surveyed at both baseline and endline, about 80 percent were men and 20 percent were women. Nearly all respondents completed a college or university degree and the majority of the respondents had more than five years of procurement-related experience. At endline, about 73 percent of respondents reported having more than five years of experience, while at baseline this percentage was about 65 percent. At baseline, nearly 50 percent of respondents worked at a district-level PSU; at endline, this was 75 percent. Between baseline and endline, the percent working at a PSU in a city dropped from 32 to 23 percent. The remaining respondents indicated that they worked at the province level. For descriptive statistics of key variables see Annex C, Volume II. For more details on respondent characteristics, see Annex D, Volume II.

Exhibit 4-4. Quantitative Sample of Surveyed Employees at PSUs and OPDs at Baseline and Endline

	Baseline (2016)			Endline (2019)		
	Comparison	Treatment	Total	Comparison	Treatment	Total
Phase 2						
Management	*20*	*25*	*45*	*23*	*24*	*47*
Staff	*110*	*140*	*250*	*111*	*140*	*251*
Total PSU-only employees	130	165	*295*	134	164	*298*
Number of PSUs	10	12	22	13	12	25
Staff employed at both PSU and OPD	18	38	*56*	13	4	*17*
OPD employees	35	40	*75*	139	164	*303*
Number of OPDs	10	12	22	10	12	22
Total respondents in	183	243	426	286	332	618

[4] The evaluation's target sample size was 600 for the baseline. However, we were only able to interview 426 because of the staff size at the PSUs. For the endline, we had a higher target for OPD staff to get a higher overall sample.

	Baseline (2016)			Endline (2019)		
	Comparison	Treatment	Total	Comparison	Treatment	Total
Phase 2						
Phase 1						
PSU employees	-	-	-	22	18	*40*
Number of PSUs	-	-	-	11	9	20
Total respondents in Phase 1 and Phase 2	*183*	*243*	426	*308*	*350*	658

To ensure data consistency and quality, we performed data quality checks while the survey was being conducted. Before the survey was fielded, we developed a data quality tool to conduct immediate quality checks on data received from the survey firm. This allowed us to provide the firm with rapid feedback on data quality and make adjustments where necessary. **Data** were uploaded to a secure platform, after which they were transferred to a secure server for cleaning and analysis by the evaluation team.

PMIS data. The second data source is tender-level outcome information from the PMIS data warehouse that began in the last few months of 2014 (before Phase 2 PSUs began receiving treatment) past the fall of 2018 (when the project ended).[5] This data warehouse was developed and consolidated as part of the PM project. It serves as a central repository of information from the 640 LPSE servers around the country and to act as a principal reporting tool for LKPP and others monitoring the procurement process at all levels of the cycle (Mitchell-Turner 2018). LKPP provided the evaluation team with a subset of the variables for the analysis, from which we developed the analysis sample for the Phase 2 treatment and comparison PSUs. The tender-level outcomes included in the difference-in-difference analysis using comparative interrupted time-series design measure two final procurement outcomes:

- Time efficiency: The total number of days taken to procure goods and services
- Cost efficiency: Difference between the estimated budget value for the tender and the cost of the winning tender

The PMIS sample size is 18,447 tenders across 21 PSUs (two PSUs were not yet in the automated system and were excluded from this analysis). During the final dissemination workshop stakeholders raised some concerns about PMIS's data quality, which could influence our findings. However, insofar as the developing and strengthening the PMIS was a part of the PM project, any data quality concerns with PMIS also reflect on the project's performance.

Sampling Strategy

Survey data. As discussed above, we selected 658 survey respondents from 25 Phase 2 PSUs and 22 associated OPDs and 40 respondents from 20 Phase 1 PSUs.

To sample respondents for the survey within Phase 2 PSUs, up to 15 PSU employees and 15 employees at OPDs were selected within the sampled PSUs. The target samples for each PSU and OPD were smaller in the baseline. If fewer than 15 employees were available, the survey firm selected all employees. The minimum number of surveyed employees was 10 from one PSU and one for the associated OPD. If the number of PSU employees was greater than the target sample size, the survey firm selected at least two management staff and randomly selected the remaining employees from a list of all employees generated by the survey firm. If the number of OPD employees was greater than the target sample size, the survey firm randomly selected employees from a list of all employees.

Respondents at endline may not be the same respondents who were surveyed at baseline due to staff turnover, especially in PSUs that transitioned to becoming permanent. Because becoming permanent is an

[5] The evaluation could not use PMIS data from 2019 because of structural differences in the way the data were recorded, making it incomparable with the 2018 data.

expected treatment outcome, this means that changes in outcomes related to employee perceptions may be the result of both specific program changes over time as well as changes in employees due to the permanency changes. That said, employees are not significantly different in terms of demographics (age, gender, levels of education) between baseline and endline. This balance provides some reassurance that differences in responses over time are due to the programmatic changes rather than changes in employee characteristics.

PMIS. In the PMIS data, we sampled only data for Phase 2 treatment and comparison PSUs. For these PSUs, we analyzed all tender-level data.

Analysis

We conducted difference-in-difference analysis on both survey data and the time series PMIS data. Following the approach used in the interim report, the evaluation compares outcomes for Phase 2 treatment and comparison PSUs. Using the weighted observations as described previously, we estimate the following two equations depending on the data source—survey data (with two time periods) or PMIS data (with multiple time periods).

Comparative interrupted time series analysis. Equation [1] depicts a generalized linear model for the time-series PMIS data with tender-level outcomes, which is a comparative interrupted time series analysis.

$$y_{ijt}^{tender} = \exp\left(\alpha + T_{jt} * \gamma + post_t * \delta_1 + T_{jt} * post_t * \beta_1 + post2_t * \delta_2 + T_{jt} * post2_t * \beta_2 + \boldsymbol{X_j} * \boldsymbol{\sigma} + \varepsilon_{ijt}\right) \quad [1]$$

The functional form of the generalized linear model is exponential because all outcomes are logically nonnegative (the difference between budgeted amount and amount offered per tender should also be positive since tenders are not issued above the budgeted amount; we dropped the eight observations in which this was the case as well as one extreme outlier). In this model, y_{it}^{tender} is the outcome for tender *i*, PSU *j* in time *t*, T_{jt} is the treatment status of PSU *j* in time *t*. $\boldsymbol{X}_j$ is a vector of covariates comprised of the baseline characteristics for PSU *j* that are good proxies of the selection criteria. The covariates are the same variables used in the matching process as listed in Exhibit 4-3, along with the average number of tenders per month. Using pre-treatment characteristics as covariates makes the model doubly robust (i.e., the causal inference is correct if either the propensity score is correct or the regression model is correct). Further, ε_{ijt} is the random error term for tender *i*, PSU *j* in time *t*. Standard errors are clustered by PSU.

In this model, $post_t$ is a dummy equal to 1 for observations in the post-implementation period used in this dataset (after fall 2016 through the end of 2018), while $post2_t$ is a dummy equal to 1 for tenders in 2018. Therefore, β_1 is the impact of treatment in the years directly following treatment, and β_2 is the incremental impact of treatment at the end of the project (in 2018). β_2 captures the extent to which some effects take more time to appear. The impact of the PM project on tenders in 2018 is $\beta_1 + \beta_2$.

Cross sectional difference in-difference analysis. The equations below show the models used to evaluate PSU-level outcomes across Phase 2 treatment and comparison PSUs using survey data in the baseline and endline. We use the most appropriate functional form to maximize power depending on the nature of the outcome. A few outcomes are continuous, such as the number of permanent staff in PSUs. One outcome uses Item Response Theory (IRT) to combine multiple related outcome measures to enable analysis of the underlying latent concept – particularly, perspectives on corruption. For these continuous outcomes we use ordinary least squares regressions as shown in Equation [2].

$$y_{ijt}^2 = a^2 + T_{jt*}\, b^2 + post_t * c^2 + \mathrm{d}\, T_{jt} * post_t * d^2 + \boldsymbol{X_j} * \boldsymbol{s} + e_{it}^2 \quad [2]$$

Most outcomes are measures of staff perceptions on changes along the 5-S and are in Likert scales, such as perceptions of bias and collusion and the desirability and stature of procurement career paths. These

were recoded to dichotomous variables for ease of interpretability.[6] Other outcomes were already dichotomous, such as those that measure whether PSUs use framework contracts, PMIS, or PPPs. Dichotomous outcomes are analyzed using logistic regressions as shown in Equation [3].

$$y_{ijt}^{3} = 1[L(a^{3} + T_{jt} * b^{3} + post_{t} * c^{3} + T_{jt} * post_{t} * d + \boldsymbol{X_j} * \boldsymbol{s} + e_{it}^{3}) > 0] \quad [3]$$

In these models, $y_{ijt}^{2,3}$ is the outcome for staff member *i* from PSU *j* in time *t* for equations 2 and 3. *L* is the inverse logistic function, i.e. f(h)=1/(1+exp(-h)), or the inverse of log odds *l*(h)=ln[h/(1-h)]. T_{jt} is the treatment status in time *t* for PSU *j*. $\boldsymbol{X_j}$ is a vector of covariates including baseline characteristics of PSU *j* that are good proxies of the selection criteria. These covariates include individual averages of the baseline variables with responses in Likert scale.[7] The covariates were not included for outcomes on which we had only fewer number of observations because it was based on responses from only the managerial staff. Further, e_{ijt} is the random error term for staff member *i* from PSU *j* in time *t*. Standard errors are clustered at the PSU level.

In these models, *post* is a dummy equal to 1 for observations in 2019. The $b^{2,3}$ is the difference between treatment and control prior to 2018 in equations 2 and 3. The weighted difference-in-difference estimate of the impact of the PM project is $d^{2,3}$.[8]

Descriptive analysis. Finally, descriptive analysis of the Phase 2 survey data will allow analysis of certain outcomes at endline only, such as participant ratings of program activities.

4.3.2 Qualitative Method

The qualitative approach used the 5-S framework to organize and guide data collection and analysis. We used qualitative analysis to assess organizational change resulting from the PM project by analyzing procurement staffs' perceived changes on shared values, structure, staffing, systems, and skills and final procurement outcomes from before the project (2014 for Phase 1 and 2016 for Phase 2) to the endline period. Further, we use the qualitative analysis to explore the factors that contributed to perceived changes or that limited change, and also how perceived changes relate to outcomes of interest. We also use the qualitative analysis to assess perceived changes among Phase 1 PSUs.

Data

We collected qualitative data using semi-structured interviews with management and line staff at PSUs and associated OPDs. We used two semi-structured interview guides that were tailored to these respondent groups (see Annex F in Volume II). Each of these guides focused on some common areas of inquiry from multiple perspectives, such as overall and local support for the PM project objectives, PSUs involvement throughout the procurement process, procurement processes and outcomes, and perceived levels of biased or collusive practices. In addition, each guide probed deeper into the areas of experience of each group. We used a recall period from 2014 for Phase 1 respondents and a recall period from 2016 for Phase 2 respondents, which reflected the varying implementation periods. We recorded interviews with consent before transcribing and translating them into English for analysis.

- **The PSU Staff Guide** focused on procurement leadership, trust and collaboration, administrative structure and PSU permanency, desirability and/or stature of procurement career paths, staff skills,

[6] We used results from the analysis of dichotomous variables for ease of interpretation. Results using ordered logits are similar.

[7] Covariates are a dummy of whether the PSU has permanent status, the average expenditure on tenders, average number of bidders per tender, average number of tenders per month, average duration of procurements, and distance to Jakarta (km).

[8] In the case of outcomes that are the result of IRT analyses, this corresponds to effects on a latent scale approximately equivalent to a z-score.

procurement processes and outcomes, use of framework contracting, e-catalog, PMIS, and PPP, and engagement with the PM project. Some questions were asked of only management staff, others were asked of all staff.

- **The OPD Guide** explored the relationship and interaction between the PSU and the OPD, procurement processes, and outcomes. During the interim evaluation, we also interviewed key stakeholders at MCC, MCA-I, LKPP, and contractors responsible for supporting project implementation, which we reference in this report.

Exhibit 4-5 shows the sample sizes for the semi-structured interviews. The samples are disaggregated by treatment status and by Phase 1 and Phase 2 interviewees. For Phase 1 and Phase 2 interviewees, we show the number of PSUs and OPDs included and the respective number of interviewees in each.

At baseline, we conducted semi-structured interviews with 164 employees across PSUs and OPDs. At endline, the data collection team conducted 130 semi-structured interviews at 20 Phase 1 PSUs and 18 Phase 1 OPDs and 25 Phase 2 PSUs and 22 Phase 2 OPDs. The sample size at endline was reduced from the baseline because we found we reached saturation in analysis before analyzing all responses. As a result, fewer management staff were interviewed at endline compared to baseline. At baseline, 19 percent were women and 81 percent were men (of the 82 percent for whom gender was recorded). At endline, 12 percent of interviewees were women and 88 percent were men.

Exhibit 4-5. Qualitative Sample of PSUs and OPDs and Interviewed Employees at Endline

	Endline (2019)		
	Comparison	Treatment	Total
Phase 2			
Management	10	15	*25*
Staff	11	14	*25*
PSU employees	21	29	*50*
Number of PSUs	13	12	*25*
OPD employees (1 in each OPD)	10	12	*22*
Phase 1			
Management	9	11	*20*
Staff	9	11	*20*
PSU employees	18	22	*40*
Number of PSUs	11	9	*20*
OPD employees	9	9	*18*
Number of OPDs	9	9	*18*
Total respondents	*58*	*72*	130

We also used monitoring data from the final PM project reports to inform our qualitative analysis.

Qualitative Sampling Strategy

We used two sampling strategies to select the PSU and OPD units. The qualitative interview sample drew from all 25 Phase 2 PSUs and 22 associated OPDs. The sampling strategy for the Phase 2 PSUs and OPDs is described above for the quantitative sample. The only difference in the qualitative strategy is that we included the three ministry level PSUs in the qualitative Phase 2 treatment group. The Phase 1 interview sample drew from a sample of 20 PSUs and 18 associated OPDs. The sample included 11 treatment PSUs out of 29 Phase 1 pilot PSUs and nine comparison PSUs. Two of the selected treatment PSUs were ministry level. The remaining nine selected PSUs were non-ministry level and represented the six islands covered in Phase 1. At the baseline, we selected a set of nine treatment and nine comparison PSUs. Using PMIS data, we selected treatment and comparison PSUs that were similar along geography, procurement budget for goods and services, average number of bidders, average bid price, and average procurement time.

Interim. At the end of the project, before the project staff left, we interviewed a small sample of key stakeholders from the project implementation team to capture perspectives from a range of respondents with detailed knowledge about the PM project. We purposively selected key stakeholders from those that we interviewed at the baseline.

Endline. At endline, we integrated the quantitative and qualitative data collection to improve efficiency, conducting semi-structured interviews with a subset of respondents selected for the structured survey. This approach reduced the number of questions included in the semi-structured interviews, which duplicated information obtained from the structured surveys. For Phase 2, the sampling frame consisted of all staff at Phase 2 PSUs and OPDs who completed the structured survey. The team selected respondents from the survey sample who consented to be contacted for an interview, had been working at the PSU or OPD since at least 2016, and only worked in either the PSU or OPD. For Phase 1, we selected respondents who had been working at the PSU or OPD since at least 2014, only worked in either the PSU or OPD, and consented to be contacted for the structured PSU survey (as the Phase 1 OPDs whose respondents did not participate in the structured survey). We interviewed two staff members (one management staff and one line staff member) at PSUs, and one staff member at the associated OPDs.

Qualitative Analysis

We used NVivo, a qualitative data management and analysis program, to code and analyze the interview transcripts. We developed a codebook, informed by the 5-S model and instruments (deductive), by coding a small set of interviews to identify themes that emerged from the data (inductive). In addition, we developed structural codes about respondent and organizational characteristics. Analysis of qualitative data began with coding (i.e., flagging pieces of data) that related to a theme or concept of interest (thematic codes) or characteristics (structural codes). To ensure inter-coder reliability, we trained all coders on the codebook, held regular team meetings with all coders, and monitored coding and data analysis for quality assurance in NVivo.

We coded transcripts by theme until we reached saturation. We randomly selected one interview per PSU and associated OPD to code for each theme, for a total of 45 interviews. We coded this sample of transcripts for each theme. Once we completed coding for a theme, we determined if saturation was reached. If it was not, then the analyst continued to code additional transcripts until saturation was reached. Once we completed coding, the analysts conducted iterative, exploratory text analysis in NVivo to identify themes and explore patterns, outliers, trends, and conflicts between and among interviewees and groups. Next, we used a variable-oriented strategy to test and further explore the emergent findings using unit-by-variable matrices. This variable-oriented strategy focused on how the responses about the elements of the 5-S model and the program theory of change were similar or divergent across individual respondents and respondent and organizational characteristics. We used this analysis to explore how respondents thought the procurement system and procurement outcomes had changed since the project's beginning and what facilitated or constrained these changes. The qualitative analysis was limited by recall bias as we asked respondents to report changes since 2014 for Phase 1 and 2016 for Phase 2 respondents. The responses may have also been influenced by response bias, as respondents may have known what type of information we were looking for or wanted to provide a positive view of the PM project.

In this report, we refer to the qualitative respondents as interviewees to distinguish between the data collected through structured surveys and semi-structured interviews. Unless specified as data coming from implementers for the interim evaluation, the qualitative data is from the endline PSU and OPD respondents. To provide a sense of the portion of qualitative responses that were given on a topic, we use the following convention throughout the report—few refers to less than a quarter of respondents, some refers to a quarter to one-half of respondents, many refers to between one-half and three-quarters of respondents, and most refers to more than three-quarters of respondents. The denominator used for these portions was the number of interviews coded for the relevant theme.

4.4. Timeframe

The PM project was implemented between April 2013 and April 2018. As shown in Exhibit 4-6, we collected data at three time periods for the evaluation.

Exhibit 4-6. PM Project and Evaluation Timeline

Data	Baseline Collection Dates	Interim Collection Dates	Endline Collection Dates
Quantitative survey data	July 2016 – August 2016	N/A	August 2019 – September 2019 (after the close of the Compact following a recommendation by MCC)
PMIS data	2014 (last few months of 2014 before Phase 2 PSUs began receiving treatment)	2018	2019 (2019 data were available but not used because of significant nationwide changes in procurement processes and PMIS data recording)
Qualitative data	August 2016 – October 2016	November 2018 – January 2019	August 2019 – September 2019

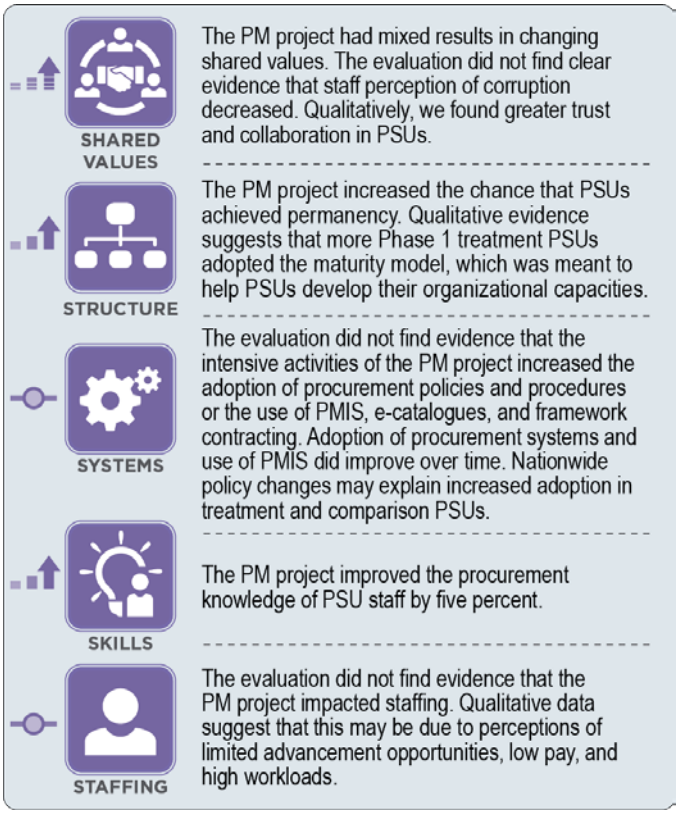
5. Findings

5.1. Estimated Impact

The impact evaluation found that the PM project improved only a few procurement outcomes. The project improved staff procurement knowledge and chances that PSUs achieved permanency. However, the evaluation found no evidence of impact of intensive PM project activities at the PSU level on all other outcomes analyzed using a quasi-experimental design. Note that lack of evidence of impact does not necessarily mean there was no impact. However, combined with small magnitude of changes in outcomes, and changes in outcomes across both treatment and comparison groups, the evidence overall suggests nationwide changes affected PSUs across the board more than did the project. In some cases, the PM project promoted nationwide changes as well.

Below, we discuss in some detail the impact of the project on organizational changes for each of the five main categories and the final outcomes expected to result from these changes (Exhibit 5-1).

Exhibit 5-1. PM Project's Impact on Organizational Change



5.1.1 Shared Values

The PM project had mixed results in changing shared values: qualitative responses claim that trust and collaboration with PSUs improved, but local government support for procurement reform did not increase. The impact evaluation did not find evidence that staff perception of corruption reduced or that there was improved legal and administrative support for PSUs.

The impact evaluation found no evidence that the PM project improved perceptions of corruption in treatment PSUs. The qualitative interviews revealed that, for the majority of PSU and OPD staff, trust and collaboration increased. However, these staff had mixed perspectives about whether local government officials were supportive of procurement reform. The literature review and interviews showed that the PM project operated in a context where rent seeking, exclusivist elite politics, and clientelism dominated, making it difficult to fully realize the intended objectives.

Overall Political Economy's Influence on the Project (EQ 1a)

Given the complex nature of public procurement, during the interim evaluation between November 2018 and January 2019, most qualitative interviewees and implementers noted that there were factors external to the project that hampered its ability to achieve intended results (Abt Associates 2019b). These factors included poor public financial management, new regulations, elections, inter-ministerial rivalries, and government work culture. By the endline, many interviewees emphasized positive changes in the broader political context. They explained that local executive government heads, including governors, district heads, and mayors, soon understood the benefits of a reformed procurement system and subsequently began to embrace local procurement reform initiatives in the context of the PM project. However, they also expressed concerned about the sustainability of reforms closely tied to an individual politician.

Shared Values (EQ 1b)

When assessing the project's influence on change in culture and shared values (part of the 5-S framework), the evaluation explored the changes in perceptions of political support for procurement modernization, perceptions of trust and collaboration, and perceptions of corruption. All of these are answered qualitatively, apart from perception of corruption.

Perceptions of political support. Interviewees, when asked about their perception of change in political support between baseline and endline, expressed mixed perspectives about whether or not local executive government heads had become more supportive of procurement reform since the PM project began. This is slightly different from the findings in the interim evaluation. These were based on perspectives of project implementers who reported improvements in political support for procurement reform over the course of the project, but still saw politics as a key obstacle to improvements in public procurement. This support from local political elites was an important condition for bringing about positive developments regarding the structure and permanency of PSUs. For example, the district head needs to issue a regulation to make a PSU independent. One interviewee explained that when this regulation is enacted, it "*mean[s] that the level of trust is one hundred percent*" (Phase 1 treatment PSU). One respondent described how achieving permanency resulted in further political and legal support for the PSU. The interviewee said,

> *The commitment of our leaders strongly supports the [PSU] becoming permanent, seen from the structural changes that have been made. Then encouraging a memorandum of understanding with law enforcement officials to provide legal protection to us... That is one of the supports to becoming permanent.* (Phase 2 treatment PSU)

A few interviewees felt that the level of political support had been fairly strong prior to the project. For example, a few Phase 2 comparison interviewees felt that permanent PSUs had existed from the start or that political leaders just followed regulations once they had been adopted. Hence, they thought that there had not been much change in political support over the course of the project.

While a few interviewees felt that "*interventions*" in the procurement process by local officials or outsiders with political affiliations to the local government had subsided, a few felt that interference with the procurement process was still an issue. For example, an interviewee said that certain elements within the bureaucracy tried to "*divide and conquer*" administrative units involved in the procurement process.

Many interviewees also discussed positive changes over time. For example, once the Jakarta Forum, an annual event established as part of the PM project to discuss procurement reform initiatives in Indonesia, gained more visibility, national-level politicians and the Indonesian president Joko Widodo started to publicly support the forum.

Perceptions of trust and collaboration. Interviewees across both the treatment and comparison groups reported improvements in trust and collaboration within and between administrative units involved in the procurement process, implying improvements across the board. A few interviewees thought that improvements in procurement processes and following procurement rules contributed to this improved trust. A few interviewees, but not the majority, attributed this to support from the PM project. One interviewee reported that they learned how to collaborate and work as a team from training and mentoring. Another interviewee mentioned that trust and collaboration had improved during the project duration with positive effects on the procurement process. One interviewee mentioned that during the project, village administrations had begun using the tender process at the district level as trust in the procurement process increased. This had led to a considerable increase in tender packages. These responses align with those from the interim report, where several interviews emphasized the positive dynamics the project had unleashed, such as when graduates of procurement training workshops formed networks on their own initiative and regularly organized meetings for interested procurement officials. The PM project, in other words, facilitated the creation of a "very vibrant community" of procurement officials, according to an interviewee.

Perceptions of corruption. The impact evaluation did not find evidence that the PM project reduced staff perception about corruption in PSUs. Results were not statistically significant (see Exhibit 5-2). In general, the overall perception that there is corruption in PSUs is quite low, which may explain the reason we did not find a statistically significant reduction in staff perception of corruption in PSUs. In addition, the perception of corruption may be shaped by a variety of factors that often do not align with actual levels of corruption. Perception-based indices of corruption must therefore not be seen as measures of actual corruption (Galtung 2006).

Exhibit 5-2. PM Project's Impact on Perception of Corruption

	Treatment		Comparison		Impact (Latent scale)	P-Value
	Before	After	Before	After		
Primary outcome. Perception of corruption in PSU	-0.08	-0.004	-0.11	-0.02	-0.02	0.88
Differences (after/before)		0.07		0.09		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 987 observations. Responses were created using IRT combining survey questions on perceived degree of corruption, bias, collusion, and transparency in the procurement process in one's PSU. Each question was on a five-point Likert scale from "never" to "always." Covariates included.

We constructed predicted values for perceptions of corruption using Item Response Theory analysis of four survey questions that aimed to understand staff perception of corruption. IRT analysis helps to understand perceptions of corruption as a latent construct underlying responses to the four survey questions on perceived degree of corruption, bias, collusion, and transparency in the procurement process. This analysis takes into account a person's strength of agreement that there is corruption in addition to how well our questions are able to differentiate between respondents' responses. The first three questions perform similarly well at predicting perceptions of corruption—the predicted values from the IRT analysis are approximately 80 percent correlated with their responses. The correlation with the fourth question on transparency is lower (around 60 percent), possibly because the question was coded in the opposite order from the others (from less to more corruption, rather than from more to less). This means that the results can be interpreted as highly correlated with reduced perceptions of corruption, bias, and collusion especially, and with transparency to a lesser extent.

Due to the sensitivity of questions about corruption, in qualitative interviews, we asked interviewees how they thought corruption changed in the procurement process rather than if they thought corruption changed in their PSU specifically. In the qualitative interviews, most interviewees in both the treatment and comparison PSUs perceived a decline in corruption in the public procurement process. Typically, respondents thought that corruption reduced due to improvements in the procurement process, though this was not attributed to the PM project in responses. Specifically, several interviewees attributed this decline to the introduction of e-procurement systems. One interviewee explained:

> *I will say, there is an improvement because there is transparency now. There is an improvement, but not too significant. There is little chance for corruption right now because all [of] the system is electronically reviewed and more transparent.* (Phase 2 treatment OPD)

A few interviewees felt that corruption remained a challenge in public procurement. One management staff member from a Phase 2 treatment PSU described two common ways that corruption occurs and related the increase in corruption to increased competition for bids. The interviewee said,

> *The most common thing [that] happened in the procurement of goods and services is a bribe, a bribe to be won. It is because the number of providers who submit bids is high, the level of competition is getting higher. Then there is a space related to the subjectivity of the working group to determining the winner; there is one of the shortcomings in the practice.* (Phase 2 treatment PSU)

Another interviewee pointed out that corruption can be facilitated when input from both subject experts and administrative managers is not adequately considered. In these instances, bidders may be able to get either administratively non-compliant or technically unsuitable bids approved.

5.1.2 Structure

The impact evaluation found that the PM project increased the chance that treatment PSUs achieved permanency. Qualitative interviews suggest that more Phase 1 and 2 treatment PSUs reported adopting the maturity model, which was a model meant to help PSUs develop their organizational capacities.

We discuss the findings in more detail below.

Organizational and Operational Changes (EQ 2a)

A key goal of the PM project was to ensure that more PSUs achieved permanency through project activities. Permanency establishes PSUs as permanent units with dedicated, full-time staff rather than the prior model of temporary committees adding the job to their non-procurement, full-time workloads. Dedicated staff are also able to improve organizational and operational structure and develop procurement competence. The PM project supported the implementation of the legal and institutional reforms of PR No. 54/2010 and PR No. 70/2012, which required permanent PSUs to be established at national and subnational government levels. Although this was a nationwide effort, it was expected that the PM project would help treatment PSUs move to permanency faster. In part to meet this objective, and for broader institutional strengthening, the project developed a mentoring program to develop the PSUs into effective procurement organizations. It also developed a maturity model tool that provided a framework for PSUs to assess their organizational capacities within the procurement function and allowed them to develop a roadmap for organizational development.

As part of the baseline and endline surveys, we asked PSU management staff (one in each PSU at baseline, two from each PSU at endline) if their PSU had achieved permanency. The difference-in-difference analysis of PSU permanency shows that the relative odds that a PSU was permanent increased almost nineteen-fold with PM project treatment. This sharp increase is statistically significant, suggesting that the relative odds of a PSU achieving permanency increased significantly in the treatment PSUs (twenty-one fold increase) and much less so in the comparison PSUs (see Exhibit 5-3).

Exhibit 5-3. PM Project's Impact on Permanency

	Treatment		Comparison		Impact (Odds Ratio)	P-Value
	Before	After	Before	After		
		Regression adjusted				
Primary outcome. Permanent – independently established	0.33	0.94	0.45	0.57	21.10**	0.02
Odds Ratio: post/pre		34.18		1.62		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 39 observations. Responses coded as 0 = permanent-attached to a ministry or ad hoc; and 1 = permanent independent. Where there were discrepancies within a PSU, the weaker case was assumed (permanent-attached). Covariates not included. Results in odd ratios.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

According to program monitoring (Ray 2018), the project strengthened the organizational structure of 43 out of 44 Phase 1 and 2 PSUs, leading to increased permanence and independence as reported by interviewees. In the interim evaluation, implementer interviewees reported that as a result of project activities, PSUs were on a stronger legal footing due to increased permanence and further integration into the local administrative apparatus. In the endline, a few interviewees discussed the effects of becoming permanent, including involvement in more of the procurement process (e.g., planning), greater authority,

and permanent staff. For example, an interviewee described changes in their PSU since becoming permanent:

> *Now, the authority is given more freedom. When it was ad hoc, if the package had been finished, then it was solely disbanded. Now, they are still here to coordinate the next package… After it is permanent, there are more functional authorities.* (Phase 2 treatment PSU)

However, a few interviewees did not think that the structural changes were effective. For example, one interviewee said that while the PSU had become permanent during the PM project, its internal structure remained the same as before the project. As a result, the interviewee did not think that permanency changed the way the PSU operated. A few interviewees reported that too many organizational changes had occurred. One interviewee lamented the fact that the organizational status of their PSU changed four times between 2012 and 2018 because of ever-changing government regulations. Another interviewee shared that sentiment and felt that there had been "*too many*" administrative changes during the project period.

Most interviewees in both treatment and comparison groups felt that the authority of PSUs to implement policies and additional procurement functions increased over the project period. A few noted that some of the procurement authority had shifted from OPDs to PSUs since 2017. A few interviewees attributed this change to the 2018 implementation of PR 16/2018, which gave the PSUs the authority to independently set the *Pokja Pemilihan* (Selection Working Group), which prepares and carries out the selection of providers, and gave all members of the *Pokja Pemilihan* the same level of authority. A few interviewees attributed increased authority to becoming an independent PSU.

Many interviewees reported that coordination improved with OPDs. Coordination and socialization meetings, held two to four times per year, were the main avenue through which PSUs interacted with OPDs, according to several interviewees. Several PSU interviewees also mentioned that consultation clinics and fora were used to provide technical guidance to the OPDs. Others said that such technical guidance was provided "on-demand."

Adoption of Maturity Model (EQ 2b)

In an important effort to support organization development, the PM project developed a procurement maturity model tailored to the PSU. This was meant to help PSUs assess their organizational capacities, develop plans to improve, and ultimately achieve CoE status.[9] According to PM project reporting, 30 out of 44 pilot PSUs achieved CoE status, and an additional five PSUs had submitted documentation to achieve CoE status by the end of the project (Ray 2018). The PM project hoped that the PSUs would continue using the maturity model to track their progress toward organizational development after the project ended. LKPP accepted the CoE framework, disseminated it nationally in 2017, and launched coaching clinics to help non-pilot PSUs adopt it (Ray 2018). Surveys with PSU management staff at endline suggested that the adoption of this maturity model was slightly greater in treatment PSUs than in the comparison PSUs. This result was not statistically significant, although it is within the confidence interval. It is likely we cannot detect a possible positive finding due to the small sample size. At the final dissemination stakeholder workshop, participants noted that the CoE PSUs encouraged other PSUs to adopt the maturity model. They also noted that another program aiming to address corruption is using the maturity model developed by the PM project, which they see as a lasting influence of the project.

[9] CoE status is based on achievement across 22 organizational capacity criteria set by the PM project (Ray 2018).

Exhibit 5-4. PM Project's Impact on Using the Maturity Model

	Endline			
	Treatment	Comparison, regression adjusted	Impact	P-value
Adoption of maturity model	6.0	5.3	1.1	0.89

[a] Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
[b] 36 observations. Covariates not included. Weights not included. Results similar with weights included.
[c] Responses were recorded as "Yes" or "No." Discrepant responses left blank.

Among qualitative interviewees, more treatment interviewees, notably in Phase 1 but also in Phase 2, reported using the maturity model than comparison interviewees. Indeed, some comparison interviewees had not heard of the maturity model. A few interviewees reported learning about the maturity model directly through trainings that the PM project provided. Interviewees whose PSUs use the maturity model reported being at a range of levels of maturity, and a few noted that high achievement on the model domains is needed to be a "center," or CoE. One interviewee described the maturity model:

> *In [the] maturity model, there is domain and subdomain, both of them consist of targets or functions that have to be done by the [PSU]. Those are very helpful in developing our organization in becoming the center of procurement service.* (Phase 1 treatment PSU)

More treatment than comparison interviewees reported positive effects from using the maturity model. They used the maturity model as a tool to measure and access performance, which, in turn, helped them target and make improvements. One interviewee explained that, as a result of maturity model adoption:

> *We are more focused on our goals with better measured performance. There are a lot of impacts, but at least, we perform better since we have parameters. Back then, we simply completed our work without knowing how far we'd gone and regardless of the difficulties in some areas. But now, we perform better and see the impacts of our actions.* (Phase 1 treatment PSU)

5.1.3 Systems

The impact evaluation did not find evidence that the PM project's intensive effort with PSUs improved systems. There was no evidence that the project's intensive activities with PSUs impacted the adoption of procurement processes, the PMIS, e-catalogs, or framework contracting. However, adoption of these systems increased across all PSUs – treatment and comparison – likely because of nationwide policy changes.

The PM project sought to institute best practice policies and procedures that would make systems within the PSUs more efficient and effective at procurement. This included an emphasis on framework contracts, the development of e-catalogs for efficient procurement of goods, and a centralized PMIS for better monitoring. There was an expectation that the PM project's intensive activities would have led treatment PSUs to adopt framework contracts, e-catalogs, and the PMIS. The evaluation did not find a statistically significant impact on these outcomes. We discuss these in some detail below.

Changes in Procurement Policies and Procedures (EQ 3a-d)

As part of the evaluation, we asked PSU and OPD staff how many of the 26 procedural changes promoted by the PM project their PSUs had adopted:

- Does consistent recording of procurement data
- Uses standard process for reviewing contract management
- Has a whistleblower hotline for all suppliers and staff
- Has a written policy to manage environmental risk
- Uses market analysis techniques and past procurements to support writing of qualification criteria
- Uses embedded checks and balances for each stage of procurement process

- Uses standard contract format
- Has undertaken organizational capability assessment to identify skill gaps in staffing
- Uses past contract performance to evaluate bidders
- Uses fair and transparent standard process and procedure for debriefing all vendors
- Has strategies to reduce reliance on monopoly suppliers
- Has documented plan to improve staff competencies
- Uses evaluation criteria based on delivering value rather than lowest cost
- Publicly discloses tenders and contract awards
- Has a process in place to manage the potential risk of nonperformance in awarded contracts
- Has a program in place to transfer skills between staff through mentoring
- Uses standard processes for contract award and signing
- Has written policy to manage conflicts of interest
- Undertakes financial reviews of suppliers to gauge threat of non-performance
- Has a program in place to enable cross-training of staff and other procurement holders
- Documents key issues in contract administration
- Employs safeguards against fraudulent activities
- Monitors blacklisted suppliers
- Has a reward program linked to performance management metrics
- Has a career advancement plan made available to staff
- Compares compensation externally to ensure competitiveness

Based on staff responses to these policy questions, we calculated the percentage of procurement procedures adopted as reported by each PSU and OPD staff member. Although not statistically significant after correcting for multiple comparisons, the percentage of procurement procedures adopted is associated with an 11 percent increase in treatment PSUs (see Exhibit 5-5). This increase is greater than the increase associated with comparison PSUs (7 percent). The statistically significant time trend of higher procedures adopted in comparison PSUs may explain why we did not find a significant impact of treatment. The qualitative results support this result: several interviewees felt that the biggest driver of change was the adoption of procurement regulations at the national level, driving PSUs' increased involvement in a broader range of procurement stages.

Exhibit 5-5. PM Project's Impact on the Percentage of Procurement Procedures Adopted

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
Primary outcome. Percentage of procurement procedures adopted	61%	73%	58%	65%	5	0.09[a]
Differences (in percentage points)		12		7***[b]		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 629 observations. Responses are the percentage of procedural changes reported as taking place.
[a] For the Benjamini Hochberg (BH) adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
[b] The statistical significance here corresponds to the significance of the coefficient on the "time" estimate in the regression.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In the interim evaluation implementers reported that the PM project helped develop and implement a number of new procurement tools and systems that staff could draw on in their work. These included e-tendering and e-procurement based on state-of-the-art software. In endline qualitative interviews with

PSUs and OPDs, the majority of Phase 1 and Phase 2 interviewees from both treatment and comparison groups noted that their PSU had become more involved in more stages of the procurement process. The single biggest reported change was a greater PSU role in the planning stage of procurement, followed by increased involvement in tender review, evaluation, and preparation. One interviewee described the changes to their involvement in the procurement process:

> *Yes, from the planning to the final process, the changes were perceived. Previously, what we were doing was just processing OPD documents that procured goods and services. The documents were given to us, we did the tender. Then we got a winner. Just like that. But now, we guide them from the start, from the planning. For example, in the preparation of the packaging*. (Phase 1 treatment PSU)

Most commonly, interviewees said that new procurement regulations at the national level, particularly PR 16/2018, had allowed local PSUs to become more involved in a broader range of procurement stages.

Use and Quality of PMIS and Extent PMIS Meets Needs of PSUs and Contributes to Procurement Planning and Implementation (EQ 3f-i)

The impact evaluation found no evidence that the PM project increased the use of the PMIS—a nationwide centralized database that keeps tender-level information. Over time, the use of the PMIS increased in the comparison group also, potentially reflecting LKPP's effort to promote it nationally: Results suggest that the difference in likelihood of using the PMIS between baseline and endline was 21.2 among the treatment group, and 12.7 in the comparison group. The impact estimate was 1.5, but this result was not statistically significant. Presence of a statistically significant positive time trend in the comparison group could explain the lack of significance: between baseline and endline the likelihood of using PMIS in the comparison group increased almost thirteen-fold (see Exhibit 5-6).

The project provided support to supplement the GoI PMIS system, which included an e-catalog, fraud filters, and a data repository of all procurement phases at all levels of government. The system's functionality was planned include conducting focused analysis and investigative tasks, managing the procurement process, and making better procurement and planning decisions. It was designed to provide a unified view of procurement activity in all stages, functions, and transactions of the procurement cycle (MCA-I 2018a). MCA-I promoted this system, and the take-up and use of the PMIS was expected to be greater in the treatment PSUs because of the capacity-building training that the PM project provided.

Exhibit 5-6. PM Project's Impact on Using PMIS

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
		Regression adjusted				
Primary outcome. Use of PMIS	0.89	18.9	0.63	7.97	1.7	0.26[a]
Treatment and control odds ratios: post/pre		21.2		12.7***[b]		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 863 observations. Responses were either "Yes" or "No." Response in odds ratio form. Covariates included.
[a] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
[b] The statistical significance here corresponds to the significance of the coefficient on the "time" estimate in the regression.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

From qualitative interviews, we learned that many interviewees seemed unaware of or had not used the PMIS as an integrated system. While interviewees did not always recognize the integrated system name (PMIS), a few of the treatment and comparison interviewees were only aware of or used specific components of the PMIS, such as the *Sistem Pengadaan Secara Elektronik (SPSE)* (i.e., Electronic Procurement System). Familiarity with its components may reflect adoption of the components but not

the whole system. It may also be the case that not all employees need to utilize the PMIS regularly as part of their job. One interviewee (Phase 1 treatment PSU) commented that there was no socialization about the PMIS, whereas another interviewee (Phase 1 comparison PSU) remarked that they were still at the stage of conducting socialization with local staff. A few interviewees said that they were not using the PMIS in their jurisdiction because they had developed their own system.[10]

Those who were familiar with the PMIS identified several aspects of the PMIS that improved PSU staff's ability to conduct procurement. Simply stated, the system made aspects of the procurement work faster and easier. Time efficiencies were positive features of the system and were sometimes attributed to SPSE or the National Registration of Vendors (*Sistem Informasi Kinerja Penyedia*). The system also made arithmetic easier, minimizing mistakes. Having the information compiled in one place and immediately accessible was an added benefit and reduced paper to be managed. In particular, interviewees highlighted features like e-catalogs and e-procurement as useful. Some of the interviewees familiar with the PMIS reported that they were satisfied with its quality.

E-catalog Knowledge and Use (EQ 3e)

The impact evaluation found no evidence that the PM project increased e-catalog use. Results suggest that the difference in likelihood of using e-catalogs between baseline and endline was 2.4 among the treatment group, and 1.5 in the comparison group. The impact estimate was 1.5, but this result was not statistically significant.

The PM project supported the adoption of e-catalogs, which became mandated in 2015 under PR 4/2015. At baseline and endline, we asked the PSU and OPD staff from comparison and treatment PSUs if their PSU had adopted e-catalogs. The weighted difference-in-difference estimate suggests that there was an approximately 70 percent increase in the relative odds of using e-catalogs, but this result was not significant (see Exhibit 5-7). The relative odds of using e-catalogs increased in the comparison group, but this result was not statistically significant.

Exhibit 5-7. PM Project's Impact on Using E-catalogs

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
		Regression adjusted				
Primary outcome. E-catalog use	1.04	2.3	0.88	1.3	1.5	0.23[a]
Odds ratio: post/pre		2.4		1.5		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 913 observations. Responses were recoded to binary from a five-point Likert scale from "Never use" to "Very often use" where responses 4 and 5 "very often use" were coded as 1.
[a] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Within the PMIS, the e-catalog function is a fully integrated management system that automates the framework contracting processes within the LKPP regulations and delivers procurement data, ensuring process transparency. The system has advanced audit functionality. The system also provides process and fraud filters that help users reduce the number of fraudulent bidders. Process automation was also expected to decrease the time taken to complete procurement. Therefore, it was expected to improve the quality of procurement outcomes.

[10] Note that the Ministry of National Development Planning (BAPPENAS) also promoted an e-procurement system (Prasetyo 2019).

In qualitative interviews, most interviewees in both treatment and comparison groups reported improved adoption of e-catalogs—particularly the Phase 1 treatment group. Largely, interviewees said that e-catalogs were simple and quick to use, with a few comparing the process to online shopping. One interviewee compared the time requirements for the full procurement process to e-catalogs: "*If [we] use the tender process, [it] can take up to a month. If using a catalog, just click. Maybe [in] two days, [you] have finished*" (Phase 1 comparison PSU). Another noted that there were conflicting regulations and rules between the national and subnational level, which undermined effective implementation of e-catalogs.

Development of Framework Contracts (EQ 3j)

The impact valuation found that the PM project did not have a statistically significant impact on the use of framework contracts. It found no evidence that the PM project increased the use of framework contracts. Results suggest that the difference in likelihood of using framework contracts between baseline and endline was 1.8 among the treatment group, and 1.2 in the comparison group. The impact estimate was 1.5, but this result was not statistically significant.

The PM project aimed to implement framework contracts across Indonesia to improve efficiencies in purchasing goods, works, and services. To achieve this, the project developed regulations to govern local and sectoral framework contracting, the associated procedures, and template documentation. After training, it also delivered a pilot program to implement an initial suite of framework agreements. Through the PMIS, the framework contracting process also included a suite of fraud and integrity filters covering all aspects of the procurement process—tendering, selection, award, and purchasing and contract management. The project trained LKPP and PSU staff and GoI personnel on the use of framework contracts and integrity filters. Insofar as training LKPP and GoI staff may have had a spillover impact on comparison PSUs, this could explain why we do not find a significant impact of intensive treatment at the PSU level (see Exhibit 5-8).

Exhibit 5-8. PM Project's Impact on Use of Framework Contracting

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
		Regression adjusted				
Primary outcome. Use of framework contracting	0.81	1.4	0.72	0.90	1.4	0.29[a]
Odds ratio: post/pre		1.8		1.2		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 883 observations. Responses were recoded to binary from a five-point Likert scale from "Never use" to "Very often use" where responses 4 and 5 "very often use" were recoded as 1. Response in odds ratio form. Covariates included.
[a] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In qualitative interviews, most interviewees reported that their PSU did not yet use framework contracts, did not know whether they were used, or could not clearly distinguish between framework contracts and e-catalogs. Phase 1 and Phase 2 treatment interviewees reported slightly higher use of framework contracts (or "umbrella contracts" as they are called in Indonesian) than comparison interviewees.

Public-Private Partnerships Conducted in Accordance with Policies and Procedures (EQ 3k-l)

Under the PPP activity, the PM project was expected to provide legal expert services to help develop procurement procedures for the selection of consultants and of private investors for PPP projects. These procurement procedures and guidelines were to take the form of Regulations of the Agency Head (*Peraturan Kepala* or *PerKa*) for PR No. 38 and were to be followed by the adoption of standard bidding documents that would be developed later. However, responsibility for PPPs moved to a special government agency. The final dissemination workshop participants explained that PSU and OPD staff do

not engage with the PPPs. The workshop participants noted that the number of PPPs went up from 3 to 13 by February 2019.

Qualitative interviewees exhibited limited understanding of what PPPs were, and our impact evaluation found that the project led to a statistically significant reduction in the implementation of PPPs (see Exhibit 5-9). These findings are in line with the relocation of responsibility for PPPs. The MCC final reports did not provide details on the achievements of this activity. However, an overview and scorecard of PPPs in Indonesia is available through a World Bank document (World Bank 2018).

Exhibit 5-9. PM Project's Impact on Using or Planning to Use PPPs

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
		Regression adjusted				
Engagement with PPP	0.71	0.62	0.14	0.42	0.30***	0.001[a]
Odds ratio: post/pre		0.88		2.96***[b]		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 756 observations. Responses were recoded as 1 if any number of PPPs were mentioned for both questions on planned and current PPPs. The responses were combined so that 1= any planned or current PPP activity and 0= no planned or current PPP activity. Response in odds ratio form. Covariates included.
[a] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
[b] The statistical significance here corresponds to the significance of the coefficient on the "time" estimate in the regression.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5.1.4 Skills

The PM project improved the procurement skills of PSU staff and provided high quality training and mentoring.

A key aspect of the PM project's focus on improving the procurement system was staff training to improve PSU staff's knowledge of procurement processes. The rationale is that when PSU staff better understand all the components of the procurement process, they are better able to accurately execute procurement processes and ultimately improve procurement outcomes. The project's procurement skills training also included non-PSU staff—specifically, persons who had a vital role in the procurement process (e.g., budget officials, contract managers, auditors). As part of the evaluation, we assessed staff's procurement skills and their perception of the quality of training and mentoring.

Quality of Training and Mentoring, and Improvement in Procurement Knowledge and Skills (EQ 4a-c)

The PM project led to a statistically significant improvement in PSU staff procurement skills according to the impact evaluation, and, according to qualitative interviews, provided high quality training and mentoring. However, the average skill level was still low. As a core activity, the PM project trained PSU staff in organizational and procurement knowledge and skills. The project trained 589 staff across 44 PSUs (15 of which were in Phase 2) and 271 non-pilot PSU staff in 12 modules on organizational skills. The project also provided pilot and non-pilot PSU staff with training to strengthen their procurement skills. The project exceeded its training targets, training a total of 2,281 pilot PSU staff and 508 non-pilot PSU staff. Overall, 24 percent of trainees were female. Within pilot PSUs, a total of 675 staff completed basic training, 589 completed intermediate training, and 494 completed advanced training. According to project monitoring data, average knowledge acquisition increased by 40 percent in post-training testing. Further, 530 staff were mentored as part of the mentoring program, which exceeded its target of 500 staff (MCA-I 2018b). The CoE PSUs also served as sources of information for non-pilot PSUs; 72 staff from these PSUs offered institutional mentoring and coaching clinics to other PSUs (Ray 2018). As part of our final evaluation, we evaluated staff on 18 procurement skills using a knowledge quiz (see Section PT of the questionnaire in Annex E, Volume II).

The impact evaluation found that the PM project had a small positive and significant impact on quiz scores. It increased the average quiz score by 1 point out of 18, or by 5 percent. On average, staff members in treatment PSUs increased their scores from 9.7 to 10.8 of 18, while the staff in comparison PSUs increased their scores from 9.4 to 9.5 (see Exhibit 5-10). While the average score is still low and the increase is not substantial, this result provides evidence that the PM project improved staff procurement knowledge.

Exhibit 5-10. PM Project's Impact on Staff Knowledge of Procurement Skills

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
Primary outcome. Staff knowledge (quiz score).	9.7	10.8	9.4	9.5	1.01***	0.01
Differences		1.06		0.05		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 629 observations. Responses are number of questions correct on a quiz testing knowledge of procurement procedures.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In the interim evaluation, implementers reported that procurement knowledge and trainee skills improved over the PM project in a variety of areas. In the endline qualitative interviews, many interviewees reported that they felt that staff skills improved over the course of the PM project, and most interviewees thought that staff were sufficiently experienced to carry out their roles and responsibilities. A few interviewees thought that staff who had been present before the PM project began were more experienced than staff who had been hired during the PM project period. A few interviewees credited the improvement skills to training or mentoring provided by the PM project. One interviewee described improvements in skills as follows:

> *Of course it is improving. They have often participated in technical guidance, competency tests, or even training. If I am not mistaken, most of them also have participated in the HR improvement program carried out by the MCA-I. They were trained continuously at that time.* (Phase 2 treatment PSU)

Despite improvement, several interviewees pointed out that not all staff had the same level of skills. For example, *Pokja Pemilihan* staff were usually experienced in procurement, while the rest of PSU staff were not. Due to this skills gap, the latter group mainly performed administrative tasks related to public procurement. While the *Pokja Pemilihan* staff's expertise and skills were considered sufficient for the demands in the current system, a few interviewees pointed out that administrative competence needed to be improved to meet the criteria for the competency certificate, which will be a requirement by 2022. Given this variation in skills, some interviewees thought that staff skills still needed to be improved through training or other support. A few interviewees noted that the accreditation process for procurement officials needed to be strengthened to ensure that staff had sufficient procurement competence.

We also asked the treatment PSU staff at endline about the quality of mentoring and training provided by the PM project on a Likert scale ranging from lowest quality (1) to highest quality (5). In the treatment PSUs, the staff on average reported that the quality was nearly the highest possible (average of 4.6) based on responses from 151 staff members. In the qualitative interviews, many interviewees were satisfied with the quality and content of the PM project trainings related to procurement and organizational skills. For example, a few interviewees appreciated the quality of the materials used in the training, the quality of the mentors, and the interactive sessions used. However, some had mixed or negative perceptions of the training. A few interviewees complained that the training administered under the PM project included some content that was geared more toward an international context than the specific Indonesian situation or Indonesian regulations. Other interviewees, however, welcomed the international outlook of the

training sessions. A few interviewees pointed out that time constraints were a major obstacle during the training sessions—staff had to leave sessions to attend other meetings. One interviewee felt that a workshop in Surabaya had been much more effective because it allowed for intensive training away from the local administration and its demands for staff members' time.

5.1.5 Staffing

No evidence that the PM project improved staffing within PSUs.

The PM project intended to develop a workforce of permanent and functional staff[11] with the idea that permanent staff are more knowledgeable and invested in the work they are conducting than part-time staff. The impact evaluation results find no evidence that the number of permanent staff increased in treatment PSUs.

Staff Commitment and Retention, Level of Permanent Staff, and Support of Staff (EQ 5a-d)

The impact evaluation found no evidence that the PM project increased the percentage of permanent staff in PSUs (see Exhibit 5-11). We asked this question of only the management staff, however, so our analysis is small in size and exploratory.

Exhibit 5-11. Number of Permanent Staff, Normalized by PSU Size

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
Total number of permanent staff employed normalized by PSU size	.92	1.48	.54	.69	0.40	0.29
Differences		.56		.16		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 63 observations. Covariates not included. Responses recorded were the total number of permanent staff employed normalized by number of tenders per month.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

We also assessed whether, as a result of the PM project, staff had changed their perception about a career in procurement, intended to continue serving as procurement officials, and/or felt supported administratively and legally. We did not find a significant effect of the project on staff members' intention to make a career out of procurement after correcting for multiple comparisons. In fact, the relative odds of making a career out of procurement decreased by nearly one-fifth. We also found the project was negatively associated with staff intending to remain for the length of their appointment, although neither impact was significant. During the implementation period, the PM project worked closely with the LKPP to revise job descriptions to better reflect the strategic nature of procurement officers' job responsibilities. In late 2017, the Ministry of State Apparatus and Bureaucratic Reform accepted the policy proposal for revising the regulation regarding functional procurement position responsibilities with increased job grades. The new regulation that came out of this effort was released in 2018 (Ray 2018). This nationwide change would have influenced staff's perceptions of careers in procurement, and perhaps more so in the comparison PSUs than the treatment PSUs.

[11] Part-time or full-time staff in PSUs without permanent status are staff from another institution who have an assignment decree to work for a PSU but still report to and are listed in the originating institution's payroll. These could either be civil servants or contract-based staff. PSUs with permanent status usually have full-time staff assigned to them. PSU functional staff are civil servants assigned as government procurement officials' specialists to perform government procurement processes. These individuals have full rights and authorities as governed by public procurement law and regulations. Structural staff are those who hold positions such as the Head of the PSU, Secretary, and administrative support (management).

The impact evaluation did not find evidence that the project improved the extent to which staff felt administratively and legally supported. The likelihood that staff felt administratively and legally supported increased by 30 percent, but this result was not statistically significant (see Exhibit 5-12).

Exhibit 5-12. PM Project's Impact on Staffing

	Treatment		Comparison			
	Before	After	Before	After		
		Regression adjusted			Impact	P-Value
Primary outcome. Intention to make a career in public procurement [a]	5.5	3.6	3.6	6.2	0.38	0.05[d]
Odds ratio: post/pre		0.7		1.7		
Primary outcome. Feel supported administratively and legally [b]	0.97	1.8	1.2	1.3	2.1	0.06[d]
Odds ratio: post/pre		1.9		0.89		
Intention to remain for length of appointment [c]	11.7	13.0	21.7	28.0	0.87	0.84
Odds ratio: post/pre		1.1		1.3		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
[a] Responses were yes or no. Response in odds ratio form. Covariates included. 622 observations.
[b] Responses were recoded to binary from a five-point Likert scale from "Not supported" to "Very supported" where responses 4 and 5 were coded as 1. Response in odds ratio form. Covariates included. 606 observations
[c] Responses were yes or no. Responses in odds ratio form. Covariates included. 626 observations.
[d] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

According to PM project reports, at the end of the project, 245 functional positions had been created of the targeted 500. PM project reports attribute the relative lack of success in this objective to the fact that compensation levels remained low for procurement positions, with a base salary of $37 a month (Ray 2018). While the PM project worked with LKPP to increase the job grade of procurement positions, the regulatory change noted above likely did not have time to have a detectable effect by the endline.

Implementers in the interim evaluation thought that, generally, pursuing a career in public procurement became more attractive as a result of the project. However, endline interviewees had varying views on whether they intended to make a career in public procurement and mixed perceptions about whether a career in public procurement had become more desirable over the course of the PM project. More Phase 1 treatment interviewees said that they intended to make a career in public procurement, compared with other interviewee groups. This could relate to the longer project exposure period for Phase 1 interviewees.

Those who found the career to be more promising cited a few reasons. First, the conversion of *ad hoc* procurement posts to functional or structural posts seems to have played a pivotal role in making procurement careers more attractive for some. Functional and structural administrative posts offer a clear career path and job description and, in some cases, a higher salary. These were structural changes discussed by interviewees in both treatment and comparison PSUs. Two interviewees explained:

> *The opportunity to offer them [a] functional position is higher than in the past. If they meet the qualifications from LKPP, we can direct them to apply for the position.* (Phase 2 comparison PSU)

> *It is clear that in 2016 we did not have a regent regulation on benefits. Now we have that regulation. And the benefits are also higher than the other functional [positions]. Then the scope of the management of the procurement of goods and services is broad.* (Phase 2 comparison PSU)

Additionally, permanent status had increased the standing of PSUs in people's perception, since procurement was no longer considered an *ad hoc* job of lesser status than a permanent job function.

Finally, process changes helped reduce the risks associated with the job. For example, one interviewee enjoyed procurement work more than before the PM project because risks like corruption had decreased due to the introduction of e-procurement. While prior to the project there was great potential for "*conflict*" with providers—an issue that negatively shaped bureaucrats' perception about pursuing a career in procurement—this issue had changed because of e-procurement.

Those who found the career to be less promising cited advancement opportunities, pay, and workload as drawbacks. Some interviewees lamented the lack of advancement opportunities within the field of public procurement. Some interviewees felt that the remuneration for public procurement officials was inadequate—either because they did not receive a regular salary but were paid a fee per procurement package completed, or because they did not receive the same salary as bureaucrats at similar levels of the administrative hierarchy. One respondent noted that the low salaries of procurement officials often created perverse incentives to engage in corrupt practices. Another interviewee stated that a career in public procurement was not desirable because the discrepancy between remuneration and the considerable legal risks of being involved in public procurement in Indonesia. As one interviewee stated, "*Rewards and punishments should be comparable. In my opinion, [PSU] is not very rewarding. The reward is very small compared to the punishment. Just doing [a] small mistake can be punished*" (Phase 2 treatment PSU). In fact, several interviewees emphasized the considerable legal risks that continue to be associated with the job. Some did not complain about the salary, but noted that their workload had increased considerably during the procurement reform phase. One interviewee said that a career in procurement was better prior to the PM project. When probed for why they reached this conclusion, the interviewee said that "incentives" were better prior to 2014. At the time of the interview, the interviewee pointed out that their workload had increased sharply without commensurate increases in their salary.

Gender Inclusivity (EQ 5e)

A small-sample assessment of responses of PSU staff on number of female staff found no evidence that the project increased the number of female procurement staff in PSUs. The number of female staff increased across the treatment and comparison PSU, but this increase was not statistically significant (see Exhibit 5-13).

Exhibit 5-13. Number of Female Staff Normalized by PSU Size

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
Number of female staff, normalized by PSU size	0.37	1.52	0.25	1.40	0.00007	1.000
Differences		1.16		1.16		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 63 observations. Covariates not included. Responses are the number of female staff normalized by the size of the PSU in terms of tenders per month.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In qualitative interviews, most interviewees across phases and treatment and comparison groups reported no changes or mixed comments on the gender inclusivity of the hiring process. One Phase 1 treatment PSU interviewee disclosed that "there is a gender bias" in recruitment. Most of these interviewees who reported no or mixed changes noted that there are no specific gender policies, but a few noted that they aim to have around 30 percent female staff. Some respondents did mention that with increased professionalization, careers in procurement would likely become more appealing to women. Characteristics that interviewees associated with men and women provide some insight into gendered views of the workplace. Across treatment and comparison groups, interviewees considered women "patient," "detail-oriented," and "more diligent." Work associated with these characteristics included reception and front desk roles. A few interviewees noted that female staff are quite competent; in some cases, interviewees noted that "*female employees show greater capability*" (Phase 1 PSU, treatment).

5.1.6 Final Procurement Outcomes

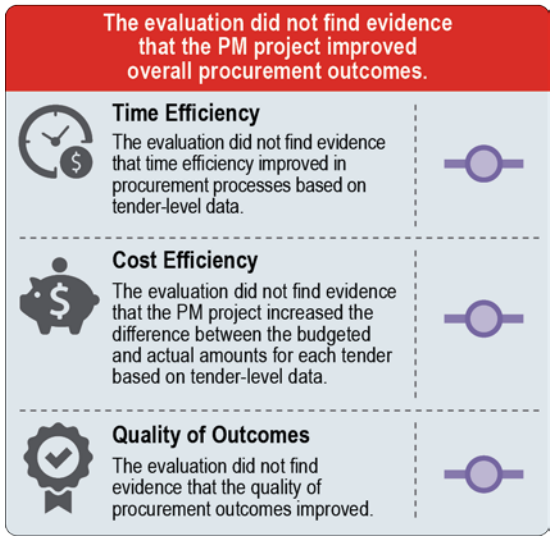
The impact evaluation did not find evidence that the PM project improved final procurement outcomes—time efficiency, cost efficiency, and staff perception about the quality of procurement outcomes—in treatment PSUs (see Exhibit 5-14)**.**

Changes in the 5-S framework factors were intended to lead to overall improvements in procurement quality-related outcomes. The overall evaluation questions (EQs) address whether this occurred. This section also examines whether the design and implementation of the program was well-suited to the local context.

Design of Activities in the Indonesian Procurement Context (EQ 6d)

The PM project aimed to address key challenges facing the procurement system in Indonesia. Implementers at the interim evaluation and PSU and OPD respondents at the endline confirmed that the project addressed several key challenges and constraints in the procurement system, including insufficient staff capacity. However, the majority of PSU and OPD interviewees felt that there were remaining challenges that the PM project did not address. These challenges were varied and included funding, staff workloads, regulations, and political intervention.

Exhibit 5-14. PM Project's Impact on Key Procurement Outcomes



A major challenge facing PSUs, and which has not been addressed by this project, is that many vendors and suppliers are dissatisfied with the quality of services provided by PSUs. A recent survey of hundreds of vendors revealed that the majority were deeply dissatisfied with the quality of services they had received after Indonesian jurisdictions switched to e-procurement. "Vendors in Indonesia not only encountered protracted delays when transacting with e-government procurement systems, they also protested that information on these systems was often outdated" (DongBack et al. 2018: 9). Of course, the GoI and vendors may have different expectations as to what an e-procurement system needs to deliver. While the GoI may be primarily interested in improving transparency and accountability in the bidding process, vendors are more interested in the functionality of the system. However, surveys such as the one mentioned above suggest that PSUs need to considerably improve the quality of the services introduced in the context of procurement reform.

Furthermore, despite reforms, new forms of corruption have emerged. Distributed denial-of-service attacks on e-procurement sites have been reported. In addition, the risk of a PSU insider manipulating the e-procurement process through deleting or changing vendor submissions needs to be addressed. Likewise, the infiltration of PSUs by external interests during the evaluation phase is another potential challenge to be addressed in the future (Huda et al. 2016:7).

A few endline interviewees raised concerns about the sustainability of the reforms implemented during the PM project. A few interviewees were concerned about sustainability of the reforms because the successful adoption and implementation of reform initiatives often depended on the support of a single individual. These individuals may transfer elsewhere in the bureaucracy or, in the case of politicians, may fail to be re-elected or may reach their term limit. For example, one respondent expressed concern that support for public procurement structures would diminish under a new local district government head. While the existing district government head was highly supportive of changes made in the way public procurement was carried out, there was no guarantee that the incoming regent would be as enthusiastic.

Several project reports also mentioned staff attrition as a potential threat to the sustainability of procurement reforms (MCA-I 2018a; Ray 2018).

Implementation Challenges and Successes (EQ 6a, b)

In qualitative interviews, PSU interviewees reported a few challenges that affected the implementation of the PM project, including having limited time to participate in trainings and significant distance from the capital. A few interviewees noted that it was difficult to implement the desired changes after participating in the training due to limited staff understanding and the organizational status of the PSU.

As reported in the interim evaluation after the project ended, implementers reported challenges that they faced during the program period, which ranged from broad political and administrative hurdles to very specific technical challenges. Concretely, a few interviewees mentioned lack of support from high-level politicians at the beginning of the PM project as a major hurdle to achieving improvements in public procurement in Indonesia. Many interviewees continued to view the role of the Ministry of Home Affairs critically. The Ministry would often refuse to approve applications for permanent PSUs, for example. However, most interviewees stated that high-level political support improved as the project matured.

Ongoing, pervasive corruption and collusion were other obstacles to procurement reform, as is widely understood in this context and mentioned by several interviewees in the interim evaluation. One interviewee expressed concerns that the PM project may teach local procurement officials how to be more sophisticated in manipulating the system in their favor.

Finally, implementers pointed to obstacles regarding specific aspects of the PM project. Some of these hurdles were technical in nature. A few interviewees noted how much time had been lost because LKPP tried to develop its own software for e-tendering and e-procurement. Eventually, LKPP became convinced that software solutions available on the market were more suitable to their needs. Some interviewees also pointed out the technical challenges of adopting and implementing modern procurement systems in remote areas of Indonesia, where Internet access was patchy or absent. In PM project reporting, implementers also noted that project activities were often siloed, which limited collaboration and coordination across implementers (Ray 2018).

Improvements in Budget Execution and Efficiency of Procurement Execution (EQ 6i)

We asked PSU management staff the percentage of budget that was executed as planned and the percentage of procurements that their PSU completed on schedule. Because we asked these questions of management staff only, the sample size is small. Among the treatment group, the percentage of budget executed went up from 88 percent in the baseline to 96 percent after the project. In the comparison group, in contrast, the percentage of budget execution remained constant at 91 percent. The difference-in-difference estimate was 8 percent, but not statistically significant.

In the treatment PSUs before the project, 89 percent of the procurements were processed on schedule; after the project, 85 percent were processed on schedule. The decline was from 85 percent to 71 percent in the comparison group. That there was a decline in both treatment and comparison PSUs in procurements processed on schedule may be explained by a new decree that required that the procurement staff not work on the weekends when interviewees indicated they previously had done so.

Exhibit 5-15. Percentage of Procurement Processes Completed on Schedule and Percentage of Budget Executed

	Treatment		Comparison		Impact	P-value
	Before	After	Before	After		
Percent of procurements processes managed by PSU completed on schedule	89%	85%	85%	71%	9%	0.59 [a]
Percent of budget executed	88%	96%	91%	91%	8%	0.225

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: 54 observations. Covariates not included. Responses were recorded as percentages.
[a] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Final Procurement Outcomes (EQ 6c, e-h)

The positive changes that PM project strove for in the shared values, systems, structure, skills and staffing were meant to ultimately improve the quality of bids and procurement outcomes, and improve the bid time and cost efficiency. Based on PSU and OPD staff perceptions, the impact evaluation did not find evidence that the PM project impacted bid quality, procurement quality or time efficiency.

The outcomes on perception of bid quality, procurement quality, and time efficiency were not statistically significant. The relative odds that staff perceived that procurement outcome quality and bid quality improved increased by 30 percent and 20 percent, respectively. The point estimate on time efficiency was 0.63, indicating a reduction in perception of time efficiency. Improvement was greater in the comparison group and was statistically significant (see Exhibit 5-16).

Exhibit 5-16. PM Project's Impact on Key Procurement Outcomes

	Treatment		Comparison		Impact	P-Value
	Before	After	Before	After		
		Regression adjusted				
Primary outcome. Perception on quality of procurement outcomes [a]	1.9	2.9	2.1	2.5	1.3	0.47[e]
Odds ratio: post/pre		1.6		1.2		
Perception on quality of bids [b]	2.8	3.5	3.9	4.3	1.2	0.65
Odds ratio: post/pre		1.3		1.1		
Primary outcome. Perception of time efficiency of procurement [c]	3.1	3.6	2.3	4.2	0.63	0.20[e]
Odds ratio: post/pre		1.2		1.8**[d]		

Data Source: PM Project Evaluation baseline survey (2016) and endline survey (2019) of PSU and OPD staff.
Notes: Responses were recoded from binary on a five-point Likert scale where the two greatest options were coded as 1. Responses on bid quality and procurement outcomes ranged from "Lowest quality to Highest quality"; and for time efficiency from "Not efficient" to "Very efficient." Responses for all in odds ratio form. Covariates included.
[a] 915 observations.
[b] 966 observations.
[c] 952 observations.
[d] The statistical significance here corresponds to the significance of the coefficient on the "time" estimate in the regression.
[e] For the BH adjusted critical p-value, see Annex B, Volume II. The adjustment does not affect our determination of statistical significance.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

We also analyzed time and cost efficiency using PMIS tender information on actual time taken to procure goods and services and the value of the winning bid compared to the budget amount. We measured time efficiency by the number of days taken to complete procurement processes—reduced time taken to review tenders should mean increased time efficiency. We analyzed the PM project's impact on cost efficiency by measuring the difference in the budget set aside for the tender and the final bid amount. A better procurement process should yield final bid values that are within the budget set aside, and find savings. Another interpretation is that the budgeted amount reflects the value of the contract, and the final bid amount reflects the cost of the contract, and the difference between the two is a benefit to the buyer, or the spending unit. One could argue that better procurement processes do not always reduce the bid value, as better value for money could mean higher bid amounts. However, if the set-aside budget is based on an accurate assessment of the value of goods or services, then we should expect the final bid value to be lower than the budget. This was also the ultimate logic of the PM project—that the procurement reforms would lead to budgetary savings.

We did not find statistically significant changes in time or cost efficiency by the end of 2018. The PM project was associated with a 10 percent increase in the number of days taken to procure goods and services. However, this result was not statistically significant. Results are statistically significant for time trends, though these cannot be attributed to the PM project. Time efficiency in 2018 was seven percent higher in 2018 compared to baseline. Between 2016 and 2018 time efficiency improved in the comparison group by 16 percent, although this improvement was offset by an eight percent reduction in 2018.

The impact estimate for cost efficiency was -0.34 percent. However, this result was not statistically significant. Cost efficiency improved over time in the comparison group after the project started in September 2016 by 50 percentage points, and this result was statistically significant. Then cost efficiency improved by another 20 percentage points by the end of the project, although this result was not statistically significant (see Exhibit 5-17). This suggests that that we do not find evidence of an impact because outcomes improved in the comparison group, which could be explained by nationwide changes, and because these relatively large changes are obscured by the high variance in outcomes in both treatment and comparison PSUs.

This emphasizes the importance of understanding the degree of change that nationwide policy changes can bring about, and the diminishing need for resource-intensive activities at the PSU level. Stakeholders at the final dissemination workshop suggested that setting strong examples of success is also needed in addition to nationwide changes. Even if the logic of having some example successes, perhaps through CoEs, is justified, the number and intensity of effort expended in developing examples could be reduced in favor of greater focus on shaping nationwide changes.

Exhibit 5-17. PM Project's Impact on Tender-Level Outcomes: Time and Cost Efficiency

	(1)	(2)
	Primary outcome. Time efficiency Duration (percent increase in number of days to procure goods and services)	Primary outcome. Cost (economic) efficiency Difference between ceiling budget and bid winner amount in 2014 Indonesian rupiahs (percent)
Treatment	-3.14 (-0.28)	37.25 (1.03)
Post (after September 2016)=α_1	-16.12** (-2.31)	50.49* (1.71)
Post 2 (2018)= α_2	8.09*** (3.55)	20.04 (0.83)
Treatment * post = (after September 2016) = β_1	-0.61 (-0.04)	111.58 (1.36)

	(1)	(2)
	Primary outcome. Time efficiency Duration (percent increase in number of days to procure goods and services)	Primary outcome. Cost (economic) efficiency Difference between ceiling budget and bid winner amount in 2014 Indonesian rupiahs (percent)
Treatment * post2 = (2018) = β_2	11.03** (2.10)	-68.69** (-2.05)
Unadjusted treatment (pre)	27.93 days	168 m. 2014 Rp.
Adjusted control mean (pre)	28.83 days	122 m. Rp.
$\beta_1 + \beta_2$ (total impact by end of 2018 in percent)	10.35 (.73)	-33.76 (-1.64)
Observations	18,447	18,418

Data source: LKPP PMIS administrative data.
Notes: For full sets of results see Annex A, Volume II. Coefficients are transformed into percentage points for ease of interpretation. The proportional change in the conditional expectation of the outcome for an increase in a dummy variable from zero to one is Exp (Coefficient)-1. We multiply these proportional changes by 100 so coefficients are in percentage point units.
Standard errors are clustered at the PSU level. Z statistics in parentheses. Note that at this sample size, z and t statistics are identical.
* p < 0.10, ** p < 0.05, *** p < 0.01

As reported in the interim evaluation after the project ended, most of the implementers we interviewed perceived that the PM project had led to real improvements in the quality of public procurement system processes with subsequent positive changes in procurement outcomes. Several interviewees mentioned the introduction of framework agreements, e-tendering, and e-procurement. These were seen as improving the efficiency and quality of the procurement process through the number of bidders, the duration of procurements, and costs.

In the endline qualitative interviews, most Phase 1 and 2 treatment and comparison interviewees thought there were improvements in at least one procurement outcome over the course of the project period, although there was not always agreement about what the improvements had been. The main improvements reported by both treatment and comparison interviewees were in time and cost efficiency, due to the use of electronic systems like e-catalogs and establishing PSUs. This supports the finding in the quantitative results where we find improvements in the time and cost efficiency in the comparison group.

However, some interviewees felt that there had been no change or negative change in turnaround time or cost savings before and after the PM project, which suggests that these improvements were not consistent across PSUs. A few interviewees noted that a change in regulation restricted their ability to work on weekends, so work took longer. A few also noted that the time required simply varies by solicitation and the number of bids received, so they had not necessarily experienced time efficiency improvements in general. Additional improvements reported by some interviewees included increased efficiency, improved governance and transparency, increased competitiveness; an increased number of bidders, timeliness, and responsiveness. However, not all interviewees agreed on whether these outcomes improved. In particular, there was disagreement among both treatment and comparison respondents about whether there was an increase in the number of bidders. A few interviewees noted factors outside of the procurement system that affected the number of bidders that were able to bid, such as the sector, the complexity of work that needed to be performed, and the location.

5.2. Evaluator's Post-Compact ERR Estimate and Comparison with Ex-ante ERR Projections and Monitoring and Evaluation Plan Targets

MCC calculated an ERR for the project only after completion. It considered benefit streams from improved value for money in procurement of construction and non-construction good and services. It also

considered the benefit from improved budget execution but did not estimate benefits from this stream because of uncertainty in the estimates.

To assess the value for money from construction procurement, MCC economists compared qualitative data from 136 workshops organized by MCA-I employees with staff from 34 Phase 1 treatment and 34 comparison PSUs and associated OPDs. Comparison PSUs were chosen based on levels of procurement spending, province, and level of government (such as city or province) (Epley and Lee 2019).

In each focus group, individuals were separated into two groups, one representing the OPD and the other representing the PSU. For an actual representative project of the PSU, all participants were given details about the project and its budget allocation. For the representative contract, the participants assigned to the spending group were asked to arrive at the value of the procured good or service, and the PSU group was asked to determine the cost of the winning contract. The ratio of the value of goods to the cost of the winning contract was defined as the approximate estimate of the project's value for money. Comparing the value for money across treatment and comparison PSUs, MCC estimated a 6.6 percent increase in value for money for construction projects. MCC also interviewed vendors and estimated a 5.3 percent reduction in their value for money, implying a transfer from the vendors to the government and therefore a net benefit stream of 1.4 percent from construction projects. To estimate the total stream of benefits, MCC assumed that all construction projects delivered a 1.4 percent value for money and applied that return to the total construction spending over time. MCC was not able to measure benefits from non-construction goods and services due to data difficulties. Overall, MCC estimated an ERR of 13.3 percent based on the benefit stream from construction contracts. However, the distribution of estimates generated from MCC's priors on parameters showed a substantial fraction of the simulated estimates below zero, meaning negative rates of return are also plausible. This implies that we cannot draw conclusions about the sign or size of economic returns with confidence.

Using tender-level data from 2014 to 2018, we assessed the PM project's cost efficiency by examining the difference in budget ceiling for a tender (its estimated value) against the cost of the winning tender and did not find a statistically significant effect. We also assessed staff perception of improvement in cost efficiency. Staff perception of cost efficiency in treatment PSUs was greater than that in the comparison PSUs, but the result was not statistically significant. The outcomes are highly variable, which means that it is possible that there was an effect, but it is difficult to detect due to noisy data. Overall, the evaluation did not find evidence that the PM project's intensive activities impacted cost efficiency, implying that the ERR was potentially negative – positive costs without any positive returns.

5.3. Conclusion and Policy Implications

The PM project's evaluation suggests that a procurement reform project is complex to implement. In Indonesia, it operated against a backdrop of political dynamics where the bureaucratic culture remained defined by personal decision making, rather than impersonal decision making based on the rule of law. In this context, while the PM project achieved outcomes directly under its control—improving staff skills and helping PSUs achieve permanency— the evaluation did not find evidence that it was successful in improving quality of procurement outcomes or their time and cost efficiency. The evaluation found that in some cases, the comparison group also improved, possibly as a result of nationwide policy changes. It appears that more comparison PSUs are using new systems introduced by the project: improved policies and procedures and PMIS. However, their use is not uniform and not all staff understand them, suggesting that it probably takes more effort and time to increase adoption of these systems, and perhaps even more to improve capacity and systems enough to have an effect on key procurement outcomes. It also suggests that improving procurement outcomes may require reforms or improvements beyond the procurement system itself. The improvement of comparison PSUs also suggests that the intensive PSU-level activities did not add value over and above nationwide activities. The following key policy implications emerge:

- **The impact evaluation did not find evidence to support the assertion that intensive activities provide greater improvements in procurement systems or save substantially more funds.** This suggests that future investments in procurement reform should consider expected impacts carefully. The PM project was based on the premise that modernizing the procurement management processes would improve the quality of procurement outcomes and result in significant budgetary savings given the total expenditure on procurements. Reinvesting this saved money in improved goods and services would contribute to economic growth. The evaluation did not prove that such gains occurred. Staff skills did improve, as did some forms of organizational change. However, there was no evidence that these led greater improvements in time and cost efficiency. It is possible that procurement process improvements improves quality rather than efficiency. In this scenario, economic growth would result from better quality of procured goods and services rather than economic gains via budgetary savings.
- **The comparative role of nationwide regulatory changes should be better understood.** The impact evaluation did not find evidence that the treatment PSUs improved more than comparison PSUs for multiple outcomes. In some cases this lack of impact may be due to improvements in the comparison PSUs, such as for adoption of improved policies and procedures; adoption of PMIS; and changes in time efficiency. While it is plausible that the PSUs set up as centers of excellence could have mentored other PSUs, improving their outcomes, the majority of the comparison PSUs claimed not to have received such inputs. As an alternative, qualitative interviews often suggested that improvements over time were the result of nationwide changes. This apparent success of nationwide changes at impacting PSUs brings into question the virtue of allocating a large share of resources for intensive activities to train PSU staff and build PSU-level systems to encourage the adoption of procurement policies and procedures. Perhaps country-level advocacy efforts would have been adequate to promote change. At minimum, we need additional research to understand the right balance of activities. Note that stakeholders at the final dissemination workshop pointed to several instances in which the PM project influenced nationwide regulatory changes. They also cited several concepts, including procurement training modules and the maturity model developed by the PM project, that are informing further work within Indonesia and are being adopted by multiple agencies. That said, this evaluation cannot rigorously establish whether the PM project caused or is still causing nationwide changes, or even whether nationwide changes influenced the PM project in turn.
- **Management systems should be reliable, and record and track unambiguous measures of progress.** The PM project supported the development of the PMIS. However, several indicators tracked in the system could have increased or decreased as a result of the project. Management systems need indicators that clearly measure progress. When donors invest in such systems, they can substantially increase impact if system users can use them to track, learn, and adapt to improve outcomes. Some Indonesian stakeholders at the final dissemination workshop also perceived that the PMIS was not of adequate quality. Bringing the PMIS up to an adequate standard is essential to measuring whether any future investments in procurement improvement have an impact.

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Annex A. Regression Results

This annex presents the full regression results conducted to estimate the PM project's impact measured as staff perception of key outcomes using survey data, or as tender-level outcomes using PMIS data. Data sources are the PM Project Evaluation baseline survey (2016) and the endline survey (2019) of PSU and OPD staff, or PMIS data from LKPP. Only PSU management staff answered certain questions. Outcomes were designated in the evaluation design report as primary or secondary outcomes of interest (Abt Associates 2019a). Results are presented in odds ratios for logit regressions.

Exhibit A-1. Consolidated Outcomes from Survey Data

Outcome	Significant (Yes/No)	P-value	Type of Dependent Variable	Effect Size
Shared Values				
Perception of corruption in PSU	No	0.877	Latent index	-0.020
Structure				
Permanency of PSU	Yes	0.021	Binary Dependent Variable	18.782
Maturity Model	No	0.894	Binary Dependent Variable	1.134
Systems				
Percentage of procedures that PSU uses	Yes	0.094	Percentage	0.045
PSUs have framework contracting	No	0.294	Binary Dependent Variable	1.424
PSUs are using e-catalog	No	0.228	Binary Dependent Variable	1.488
PSU using PMIS	No	0.254	Binary Dependent Variable	1.671
Budget execution	No	0.156	Total Procurements/Total Procurement Budget	8.284
Procurement completed on schedule	No	0.567	Percentage	9.158
Skills				
Quiz tally – quiz on staff knowledge on procurement	Yes	0.002	Score out of 18	1.016
Staffing				
Staff intend to make career in procurement	Yes	0.050	Binary Dependent Variable	0.378
Staff feel supported administratively and legally	No	0.056	Binary Dependent Variable	2.134
Permanent staff, normalized	No	0.287	Number of staff	0.403
Desirability of career in public procurement	Yes	0.009	Binary Dependent Variable	0.357
Intention to stay for length of procurement	No	0.840	Binary Dependent Variable	0.865
Female staff, normalized	No	1.000	Number of staff	0.000
Overall Procurement Quality and Efficiency Outcomes				
Time efficiency	No	0.198	Binary Dependent Variable	0.633
Perception on quality of procurement outcomes	No	0.465	Binary Dependent Variable	1.281

Shared Values

Exhibit A-2. Impact of PM Project on Perception of Corruption in PSU (Shared Values)

Dependent Variables	(1) Perception of Corruption in PSU (latent index)
	Primary Outcome
Treatment	0.032
	(0.102)
Time	0.093
	(0.109)
Interaction of treatment and time	-0.020
	(0.130)
Distance from Jakarta (km)/1000	0.077**
	(0.032)
Permanency of PSU at baseline	0.084
	(0.065)
Mean amount offered US$/10,000 at baseline	-0.009
	(0.010)
Number of procurement participants at baseline	-0.005
	(0.004)
Mean tenders per month at baseline	0.006***
	(0.002)
Mean duration (days) for procurements at baseline	0.014
	(0.009)
Constant	-0.399**
	(0.181)
Observations	987
R-squared	0.040

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Structure

Exhibit A-3. Impact of PM Project on PSU Permanency (Structure)

Dependent Variables	Permanency (yes/no)
	Primary Outcome
Treatment	0.611
	(0.532)
Time	1.628
	(1.562)
Interaction of treatment and time	18.782**
	(23.863)
Distance from Jakarta (km)/1000	1.068
	(0.436)
Permanency of PSU at baseline	43.313***
	(36.681)
Mean amount offered US$/10,000 at baseline	1.368***
	(0.161)
Number of procurement participants at baseline	1.102**
	(0.052)
Mean tenders per month at baseline	0.999
	(0.024)
Mean duration (days) for procurements at baseline	0.801*
	(0.102)
Constant	0.021*
	(0.045)
Observations	63

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Exhibit A-4. Regression Results from Management-only and Treatment-only Survey Questions – Descriptive (Structure)

Variables	Maturity Model (yes/no)
	Secondary Outcome
Treatment	1.134
	(1.075)
Constant	5.289**
	(3.734)
Observations	36

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Exhibit A-5. Impact of PM Project on Procurement Policies and Procedures (Systems)

Variables	(1) Percentage of Procedures that PSU Uses	(2) PSUs Have Framework Contracting (yes or no)	(3) PSUs Are Using e-Catalog (yes or no)	(4) PSU Using PMIS (yes or no)	(5) PSU Engaged or Planning to Engage PPP (yes or no)
	Primary Outcome	Primary Outcome	Primary Outcome	Primary Outcome	Primary Outcome
Treatment	0.036**	1.125	1.173	1.415	5.004***
	(0.018)	(0.308)	(0.311)	(0.398)	(1.509)
Time	0.072***	1.239	1.504	12.690***	2.959***
	(0.021)	(0.352)	(0.413)	(4.170)	(0.850)
Interaction of treatment and time	0.045*	1.424	1.488	1.671	0.297***
	(0.027)	(0.480)	(0.491)	(0.758)	(0.107)
Distance from Jakarta (km)/1000	-0.005	0.731***	0.870*	0.932	0.958
	(0.006)	(0.062)	(0.069)	(0.099)	(0.094)
Permanency of PSU at baseline	0.077***	1.375**	1.312*	1.100	2.384***
	(0.014)	(0.223)	(0.211)	(0.226)	(0.486)
Mean amount offered US$/10,000 at baseline	-0.005**	0.942**	0.929***	1.007	0.981
	(0.002)	(0.024)	(0.023)	(0.034)	(0.029)
Number of procurement participants at baseline	0.000	0.989	0.984*	1.033***	1.000
	(0.001)	(0.009)	(0.009)	(0.012)	(0.011)
Mean tenders per month at baseline	-0.002***	1.001	0.996	0.994	1.042***
	(0.000)	(0.005)	(0.005)	(0.007)	(0.007)
Mean duration (days) for procurements at baseline	0.002	1.007	1.014	0.963	0.954
	(0.002)	(0.022)	(0.022)	(0.029)	(0.028)

Variables	(1) Percentage of Procedures that PSU Uses	(2) PSUs Have Framework Contracting (yes or no)	(3) PSUs Are Using e-Catalog (yes or no)	(4) PSU Using PMIS (yes or no)	(5) PSU Engaged or Planning to Engage PPP (yes or no)
Constant	0.609***	2.199*	2.841**	0.661	0.144***
	(0.036)	(1.048)	(1.349)	(0.378)	(0.074)
Observations	629	883	913	863	756
R-squared	0.180				

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Exhibit A-6. Regression Results from Management-only and Treatment-only Survey Questions – Descriptive (Systems)

Variables	(1) Budget Execution (Total Procurements/Total Procurement Budget)	(2) On Schedule Procurements (%)
	Secondary Outcome	Secondary Outcome
Treatment	-3.063	4.417
	(5.979)	(8.092)
Post (time dummy)	-0.417	-13.505
	(3.773)	(13.265)
Interaction of treatment and time	8.284	9.158
	(6.748)	(15.521)
Constant	91.397***	84.666***
	(2.494)	(6.859)
Observations	55	54
R-squared	0.080	0.070

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Skills

Exhibit A-7. Impact of PM Project on Skills and Knowledge of Procurement (Skills)

Variables	Quiz Tally – Staff Knowledge of Procurement (score out of 18 questions)
	Primary Outcome
Treatment	0.361
	(0.292)
Time	0.046
	(0.311)
Interaction of treatment and time	1.016***
	(0.380)
Distance from Jakarta (km)/1000	0.137
	(0.089)
Permanency of PSU at baseline	0.178
	(0.187)
Mean amount offered US$/10,000 at baseline	-0.090***
	(0.029)
Number of procurement participants at baseline	-0.005
	(0.011)
Mean tenders per month at baseline	-0.022***
	(0.006)
Mean duration (days) for procurements at baseline	0.062**
	(0.026)
Constant	9.610***
	(0.562)
Observations	629
R-squared	0.098

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Staffing

Exhibit A-8. Impact of PM Project on Procurement (Staffing)

Variables	(1) Staff Intend to Make Career in Procurement (yes/no)	(2) Staff Intend to Stay for the Length of the Procurement (yes/no)	(3) Staff Feel Supported Administratively and Legally[a] (yes/no)
	Primary Outcome	**Secondary Outcome**	**Primary Outcome**
Treatment	1.543	0.538	0.732
	(0.507)	(0.259)	(0.216)
Time	1.734	1.292	0.890
	(0.725)	(0.764)	(0.294)
Interaction of treatment and time	0.378*	0.865	2.134*
	(0.188)	(0.621)	(0.847)
Distance from Jakarta (km)/1000	1.218	1.763***	0.852*
	(0.164)	(0.381)	(0.083)
Permanency of PSU at baseline	0.887	0.477*	2.642***
	(0.214)	(0.201)	(0.543)
Mean amount offered US$/10,000 at baseline	1.015	1.117*	0.976
	(0.040)	(0.071)	(0.029)
Number of procurement participants at baseline	1.004	1.046*	0.999
	(0.014)	(0.026)	(0.011)
Mean tenders per month at baseline	1.000	0.975**	0.998
	(0.009)	(0.011)	(0.006)
Mean duration (days) for procurements at baseline	0.968	0.963	1.005
	(0.032)	(0.054)	(0.027)
Constant	4.382**	5.614**	1.547
	(3.015)	(4.111)	(0.878)
Observations	622	606	626

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Exhibit A-9. Regression Results from Management-only and Treatment-only Survey Questions – Descriptive (Staffing)

Variables	Number of Permanent Staff, Normalized	Number of Female Staff, Normalized
	Secondary Outcome	Secondary Outcome
Treatment	0.379	0.121
	(0.326)	(0.092)
Time	0.151	1.155***
	(0.192)	(0.209)
Interaction of treatment and time	0.403	0.000
	(0.375)	(0.338)
Constant	0.543***	0.248***
	(0.175)	(0.070)
Observations	63	63
R-squared	0.246	0.293

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Final Procurement Outcomes

Exhibit A-9. Impact of PM Project on Final Procurement Outcomes (Overall Evaluation Questions)

Variables	(1) Perception of Time Efficiency (yes/no)	(2) Perception on Average Quality of Outcomes (yes/no)	(3) Satisfaction with Bid Quality (yes/no)
	Primary Outcome	**Primary Outcome**	**Secondary Outcome**
Treatment	1.367	0.906	0.709
	(0.384)	(0.249)	(0.193)
Time	1.811**	1.227	1.099
	(0.528)	(0.339)	(0.311)
Interaction of treatment and time	0.633	1.281	1.173
	(0.225)	(0.433)	(0.407)
Distance from Jakarta (km)/1000	0.963	0.926	0.952
	(0.095)	(0.076)	(0.085)
Permanency of PSU at baseline	1.015	0.869	0.939
	(0.179)	(0.146)	(0.172)
Mean amount offered US$/10,000 at baseline	0.986	0.992	1.005
	(0.028)	(0.025)	(0.027)
Number of procurement participants at baseline	0.982*	0.980**	0.984*
	(0.009)	(0.009)	(0.009)
Mean tenders per month at baseline	0.999	0.996	0.988**
	(0.006)	(0.006)	(0.006)
Mean duration (days) for procurements at baseline	1.000	1.015	1.003
	(0.024)	(0.023)	(0.024)
Constant	4.563***	3.462**	7.534***
	(2.482)	(1.698)	(3.736)
Observations	963	915	966

Responses were recoded to binary from a five-point Likert scale from "Not supported" to "Very supported" where responses 4 and 5 "very supported" were coded as 1. Response in odds ratio form. Covariates included.
Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Exhibit A-10. Impact of PM Project on Final Procurement Outcomes (PMIS tender-level data)

	(1)	(2)
	Time Efficiency. **Duration (percent increase in number of days to procure goods and services)**	Cost efficiency. **Difference between ceiling budget and bid winner amount in 2014 Indonesian rupiahs (percent)**
	Primary Outcome	Primary Outcome
Treatment	-3.14 (-0.282)	37.25 (1.027)
Post (after September 2016)=α_1	-16.12** (-2.307)	50.49* (1.714)
Post 2 (2018)= α_2	-0.61 (-0.044)	111.58 (1.362)
Treatment * post = (after September 2016) = β_1	8.09*** (3.552)	20.04 (0.833)
Treatment * post2 = (2018) = β_2	11.03** (2.096)	-68.69** (-2.046)
ULP has permanent status	1.11 (0.132)	-9.06 (-1.026)
Average response to whether ULP has Standard Operating Framework (SOP)	-8.87 (-0.614)	-41.28** (-2.100)
Mean amount offered US$/10,000 at baseline	12.65 (0.342)	-42.66 (-1.547)
Number of procurement participants at baseline	0.35 (0.189)	-10.14*** (-3.918)
Mean tenders per month at baseline	0.24 (0.410)	3.26*** (3.102)
Mean duration (days) for procurements at baseline	-0.00 (-0.009)	0.74* (1.652)
Constant	540.13*** (4.69)	2.94e+10*** (45.19)
Observations	18,447	18,418

Note: Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Annex B. Benjamini Hochberg Adjustments for Multiple Comparisons Table

This annex presents the Benjamini Hochberg adjustments for multiple comparisons. We made these adjustments for outcome domains with multiple primary outcomes. This was the case only for the primary outcomes within the Systems, Staffing, and Final Procurement domains.

Exhibit B-1. Benjamini Hochberg Adjustments for Multiple Comparisons Table

Outcome	Significant (Yes/No)	P-value	P-rank by Category of Procurement Process (see 5-S Framework)	BH Adjusted Critical P-value (.05*p-rank/ Number of Observations in Category)	Logit P-value Smaller than New Critical Value?	Statistical Significance after Correction?	Primary
Shared Values							
Perception of corruption in PSU	No	0.88	1	Not needed when there is only one primary outcome within a domain.			
Structure							
Permanency of PSU [a]	Yes	0.02	1	Not needed when there is only one primary outcome within a domain.			
Systems							
Percentage of procedures that PSU uses	Yes	0.094	2	0.017	No	No	Yes
PSUs have framework contracting	No	0.294	5	0.042	No	No	Yes
PSUs are using e-catalog	No	0.228	3	0.025	No	No	Yes
PSU using PMIS	No	0.254	4	0.033	No	No	Yes
PSU engaged or plan to engage PPP	Yes	0.001	1	0.008	Yes	Yes	Yes
Skills							
Quiz tally – quiz on staff knowledge on procurement	Yes	0.002	1	Not needed when there is only one primary outcome within a domain.			
Staffing							
Staff intend to make career in procurement	Yes	0.05	1	0.025	Yes	No	Yes
Staff feel supported administratively and legally	No	0.056	2	0.05	No	No	Yes
Overall Procurement Quality and Efficiency Outcomes							
Time efficiency	No	0.198	1	0.025	No	No	Yes
Perception on quality of procurement outcomes	No	0.47	3	0.050	No	No	Yes

Notes: P-values adjusted for primary outcomes within each category. [a] All other management-only regression results are exploratory; the evaluation design defined permanency as a primary outcome.

Annex C. Descriptive Statistics

This annex presents summary statistics for all the outcomes and variables used in the evaluation.

Exhibit C-1. Descriptive Statistics

	Treatment					Unweighted Comparison					Weighted Comparison					
	Count	Mean	Standard Deviation	Min	Max	Count	Mean	Standard Deviation	Min	Max	Count	Weighted Sum	Mean	Standard Deviation	Min	Max
Shared Values																
Corruption in your PSU	575	-.04	.86	-1.12	2.45	414	.70	.91	-1.12	2.69	414	436.01	.01	.90	-1.12	2.69
Structure																
Permanency/ Legal status of PSU	36	.61	.49	0	1	27	.44	.51	0	1	27	29.40	.29	.46	0	1
Maturity Model	21	.86	.36	0	1	15	.80	.41	0	1	15	16.91	.84	.38	0	1
Systems																
Percent procedures used	371	.66	.17	.15	1	258	.62	.16	0	.96	258	262.54	.610	.16	0	.96
Level of framework contracting use	516	.53	.50	0	1	369	.42	.49	0	1	369	389.30	.47	.50	0	1
Level of e-catalog use	534	.62	.49	0	1	381	.50	.50	0	1	381	402.10	.55	.50	0	1
Use of new PMIS	498	.75	.43	0	1	366	.70	.46	0	1	366	382.52	.70	.46	0	1
Engages in or plans to engage in PPP activities	426	.39	.49	0	1	330	.33	.47	0	1	330	347.11	.27	.45	0	1
Budget execution - Realization of spending of goods/services managed by PSU	32	93.25	12.78	30	100	23	91.57	8.21	73	100	23	26.17	91.14	7.65	73	100
Procurements completed on schedule	31	86.42	24.58	6	100	23	79.26	28.14	2	100	23	23.92	74.84	29.56	2	100
Skills																
Quiz score	371	10.22	2.17	2	16	258	9.44	2.10	0	14.67	258	262.54	9.46	2.06	0	14.67

	Treatment					Unweighted Comparison					Weighted Comparison					
	Count	Mean	Standard Deviation	Min	Max	Count	Mean	Standard Deviation	Min	Max	Count	Weighted Sum	Mean	Standard Deviation	Min	Max
Staffing																
Permanent staff, normalized	36	1.29	.89	0	3.08	27	.64	.38	0	1.14	27	29.40	.64	.35	0	1.14
Intention to make a career in procurement	367	.82	.39	0	1	255	.82	.39	0	1	255	260.02	.82	.39	0	1
Desirability of career in public procurement	370	.57	.50	0	1	257	.54	.50	0	1	257	261.80	.54	.50	0	1
Intention to stay for length of appointment	354	.92	.27	0	1	252	.94	.24	0	1	252	258.86	.95	.22	0	1
Legal and administrative support	369	.56	.50	0	1	257	.60	.49	0	1	257	261.80	.55	.50	0	1
Female staff, normalized	36	1.14	1.16	.05	3.61	27	.88	.77	.05	2.58	27	29.40	1.02	.83	.05	2.58
Overall Evaluation Questions																
Time efficiency of procurement	563	.77	.42	0	1	402	.75	.44	0	1	402	426.30	.77	.42	0	1
Satisfaction with procurement outcome	556	.76	.43	0	1	397	.74	.44	0	1	397	419.49	.76	.42	0	1
PMIS																
Cost (economic) efficiency of procurement (PMIS data)	8944	2.68 e+08	2.79 e+09	0	8.71 e+10	9474	1.99 e+08	9.58 e+08	1184	3.71 e+10	9474	8591.24	1.86 e+08	9.73 e+08	1184	3.71 e+10
Time efficiency of procurement (PMIS data)	8955	26.13	27.37	.02	328	9492	34.96	26.81	.21	258.81	9492	8607.80	30.73	24.33	.21	258.81

Annex D. Sample Summary Statistics

This annex presents summary statistics for other variables used in this evaluation.

Exhibit D-1. Summary Statistics for Sample Characteristics

	Baseline Mean	Endline Mean
Gender		
Male	79.76	79.48
Female	20.24	20.52
Age		
18-29 years	2.12	1.83
30-39 years	47.29	31.81
40-49 years	36.94	43.68
50-59 years	13.65	22.68
Education		
Completed secondary	3.06	4.41
Some college/university	0.24	0
Completed college/university	96.47	95.44
Technical/vocational college	0.24	0.15
Years of procurement related experience		
Less than 5 years	35.29	26.90
More than 5 years but less than 10 years	46.82	44.38
More than 10 years but less 15 years	11.76	21.12
15 years or more	6.12	7.60
PSU level employment		
District	48.36	75.08
City	31.92	23.40
Province	19.72	1.52

Annex E. Survey Instrument

MCA-INDONESIA PROCUREMENT MODERNIZATION PROJECT		
INTERVIEWER _____ : ⌊_⌊_⌊_⌋ **SUPERVISOR**_____ : ⌊_⌊_⌊_⌋	CONFIDENTIAL	**ID** ⌊_⌊_⌊_⌊_⌊_⌋

JK. NUMBER OF VISIT: ⌊_⌋

	First Visit	Second Visit	Third visit
DATE	⌊_⌊_⌋/⌊_⌊_⌋/⌊_⌊_⌊_⌊_⌋	⌊_⌊_⌋/⌊_⌊_⌋/⌊_⌊_⌊_⌊_⌋	⌊_⌊_⌋/⌊_⌊_⌋/⌊_⌊_⌊_⌊_⌋
TIME BEGIN	⌊_⌊_⌋:⌊_⌊_⌋	⌊_⌊_⌋:⌊_⌊_⌋	⌊_⌊_⌋:⌊_⌊_⌋
TIME END	⌊_⌊_⌋:⌊_⌊_⌋	⌊_⌊_⌋:⌊_⌊_⌋	⌊_⌊_⌋:⌊_⌊_⌋
RESULT OF VISIT	1. Finish 2. Finish partially due to _____ 3. Refuse 6. Not interviewed due to _____	1. Finish 2. Finish partially due to _____ 3. Refuse 6. Not interviewed due to _____	1. Finish 2. Finish partially due to _____ 3. Refuse 6. Not interviewed due to _____

SECTION NP. CONSENT FORM

My name is […..] and I work for SurveyMETER research firm. We are collecting information for an external evaluation for the Procurement Modernization Project of Millennium Challenge Corporation in Indonesia. We would like to interview you regarding your knowledge and experience in procurement. Our study is funded by the Millennium Challenge Corporation, an agency that provides assistance to other countries' development projects, and is being carried out by Abt Associates and SurveyMETER. The interview will not last more than two hours. As a follow up of this study, with your consent, the qualitative data collection team will visit you in the next 1 – 2 weeks for a follow-up interview.

We will pool the information from you together with information that we collect from other respondents. In total we will interview approximately 300-500 respondents. We will not disclose any information that may lead to your personal identification. However, as we administer the survey to 44 ULP/UKPBJ and OPD/OPD, there is a possibility that someone may gather that you are providing the information. We strongly request you not to disclose any illegal practices related to you or by mentioning any names.

The information that we collect from this survey is only intended for evaluation purpose and strictly kept confidential in any manners applicable by the law of The United States of America and Republic of Indonesia. Therefore, the data might be disclosed by court ruling. We will submit all the information from this survey to the Millennium Challenge Corporation, though we will omit any information regarding individual identification.

Your participation is voluntary and you can choose not to answer any question or all questions for any reason. In other words, you have the choice not to consent to participate in this survey and there won't be any consequences for such a decision. You may contact Abt or the Chairman of SurveyMETER IRB if you have any questions, feedback, or complaints about this study. If you have any questions, please do not hesitate to ask me.

Do you have any questions for me about the interview or evaluation?

1. Yes [ASNWER RESPONDENT'S QUESTION THOROUGHLY]
3. No [CONTINUE TO NEXT QUESTION]

Do you consent to participate in this survey?

1. Yes
3. No☐**CP** [THANK RESPONDENT FOR HIS/HER TIME, WRITE RESPOND ON SECTION CP]

Are you willing to be contacted again in the next 1-2 weeks?

1. Yes [RECORD NAME TO FILL THE RESPONDENT ID LIST)
3. No [CONTINUE TO THE NEXT QUESTIONS]

Abt Contact:
Abigail Conrad
Abigail_Conrad@abtassoc.com
+1 301-347-5794

Local IRB Contact:
Prof. Ferdy Samuel Rondonuwu, PhD
ferdy_sr@yahoo.com
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SECTION: COV, NP, KR, SA, PP, MP, KT, KW, EK, PD, TB, PT, KS, CP

COV00	Program Phase: 1. Phase 1 Phase 2	COV01	A. Respondent category: B. ULP/UKPBJ Management C. ULP/UKPBJ Non-management OPD/OPD
COV02	ULP/UKPBJ level: 1. District/City 2. Province 3 Ministry	COV03	OPD/OPD ID └┴┴┘

INTERVIEWER'S NOTE:

1. IF COV01 = A, INTERVIEW ALL SECTIONS EXCLUDING SECTION KS
2. IF COV01 = B, INTERVIEW ALL SECTIONS EXCLUDING SECTION KS AND START THE INTERVIEW IN SA20 FOR SECTION SA
3. IF COV01 = C, INTERVIEW SECTION NP, KR, AND KT - KS (EXCLUDE SECTION A, SA, PP, AND MP)
4. IF COV01 = B AND C, INTERVIEW ALL SECTIONS AND START THE INTERVIEW IN SA20 FOR SECTION SA20
5. IF COV01 = A AND C, INTERVIEW ALL SECTIONS

SECTION KR. RESPONDENT CHARACTERISTICS

Part 1 (FOR ALL RESPONDENTS)

First, we will ask about your characteristics.

KR01.	What is your age in years?	1. 18-29 years 2. 30-39 years 3. 40-49 years 4. 50-59 years 5. 60-69 years 6. 70-79 years -77. REFUSE TO ANSWER -88. DON'T KNOW
KR02.	What is your gender?	1. Male 3. Female
KR03.	What is the highest level of education you have achieved?	01. Completed Secondary 02. Some college/university 03. Completed College/university 04. Technical/vocational college 95. Other (specify): _____ -77. REFUSE TO ANSWER -88. DON'T KNOW
KR04.	How many years have you been employed in your current position?	01. └┴┴┘ Years -77. REFUSE TO ANSWER -88. DON'T KNOW
KR05.	How many total years of experience do you have in **procurement related tasks**? (Budgeting, selection committee member, contract management or other related tasks)?	1. └┴┴┘ Years -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION A. PROCUREMENT MODERNIZATION PROJECT PARTICIPATION

Part 1a (FOR ULP/UKPBJ RESPONDENT ONLY)

A01.	Did you or your ULP/UKPBJ receive any support from the Procurement Modernization project?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
A02.	Did you or your ULP/UKPBJ receive any support from other ULP/UKPBJ on procurement modernization?	1.Yes 3. No ➔**If no to A01 and A02 skip to SA00; If no to A02, skip to A04** -77. REFUSE TO ANSWER -88. DON'T KNOW
A03.	Please provide the name of the ULP/UKPBJ that supported you	[Insert ULP/UKPBJ drop down list (which should include COEs).] -77. REFUSE TO ANSWER -88. DON'T KNOW
A04.	In what year did your ULP/UKPBJ begin to receive support from the Procurement Modernization project or other ULP/UKPBJ?	1.Before 2014 2.2014 (Phase 1) 3.2015 (Phase 1) 4.2016 – April 2018 (Phase 2) 5.After April 2018 -77. REFUSE TO ANSWER -88. DON'T KNOW
A05.	What kind of support did your ULP/UKPBJ receive from the Procurement Modernization project or other ULP/UKPBJ? (check all that apply) **SHOWCARD**	A. Training on procurement B. Mentoring on procurement C. Training on organizational strengthening D. Mentoring on organizational strengthening E. Mentoring or other support from a Center of Excellence V. Other (specify) -77. REFUSE TO ANSWER -88. DON'T KNOW
A06.	What kind of support did you personally receive from the PM project or other ULP/UKPBJ? (check all that apply) **SHOWCARD**	A. Training on procurement B. Mentoring on procurement C. Training on organizational strengthening D. Mentoring on organizational strengthening E. Mentoring or other support from a Center of Excellence V. Other (specify) _____ -77. REFUSE TO ANSWER -88. DON'T KNOW
A07.	What was the **quality of mentoring** provided by the Procurement Modernization project? **SHOWCARD**	**1 2 3 4 5** **Lowest quality Highest quality** 6. NOT RECEIVE MENTORING -77. REFUSE TO ANSWER -88. DON'T KNOW
A08.	What was the **quality of training** provided by the Procurement Modernization project? **SHOWCARD**	**1 2 3 4 5** **Lowest quality Highest quality** -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION SA. ADMINISTRATIVE STRUCTURE/ULP/UKPBJ PERMANENCY STATUS AND STAFF PROFESSIONALIZATION

Part 2a. Administrative Structure/ULP/UKPBJ Permanency Status and Staff Professionalization (Section 2a FOR ULP/UKPBJ MANAGEMENT ONLY)

SA00	INTERVIEWER CHECK IF COV01=A, IS IT RESPONDING QUESTION SA01-SA19?	1. YES 3. NO ➔ **SA20**
SA01.	What is the legal status of your ULP/UKPBJ?	1. Ad-hoc 2. Permanent – attached to a Ministry or Government Agency 3. Permanent – independently established ➔ **SA08**

SA02.	Does your ULP/UKPBJ have a **draft or completed Perda/Permen** that has been submitted to the Indonesian Regional Legislative Assembly (DPRD)/Ministry of State Apparatus for the approval of a permanent ULP/UKPBJ?	1. Yes➔ **SA08** 3. No -77. REFUSE TO ANSWER ➔ **SA08** -88. DON'T KNOW ➔ **SA08**
SA03	Is your ULP/UKPBJ currently in the process of seeking permanent legal status (Perda at district/city/province level OR Permen at ministry level)	1. Yes➔ **SA08** 3. No -77. REFUSE TO ANSWER ➔ **SA08** -88. DON'T KNOW ➔ **SA08**
SA04	At what level of government is your ULP? 1. ULP/UKPBJ city/district level 2. ULP/UKPBJ province level ☐SA06 3. ULP/UKPBJ ministry/government agency level (K/L/PD) ☐SA07	
SA05	At what levels has your ULP/UKPBJ obtained **approvals for achieving permanent legal status** (check all that apply)?	A. City/District leadership approval B. City/District council successful vote on legislation C. Provincial government approval of city/district legislation
	ULP DISTRICT/CITY LEVEL	D. Not applicable -77. REFUSE TO ANSWER -88. DON'T KNOW ➔ **SA08**
SA06	At what levels has your ULP/UKPBJ obtained approvals for achieving permanent legal status (check all that apply)? **ULP PROVINCE LEVEL**	A. Province leadership approval B. Province council successful vote on legislation C. Ministry of Home Affairs approval of provincial legislation D. Not applicable -77. REFUSE TO ANSWER -88. DON'T KNOW ➔ **SA08**
SA07	At what levels has your ULP/UKPBJ obtained approval for achieving permanent legal status? (check all that apply) **ULP/UKPB MINISTRY/ GOVERNMENT AGENCY LEVEL (K/L/PD)**	A. Ministry leadership B. Ministry of State Apparatus C. Not applicable -77. REFUSE TO ANSWER -88. DON'T KNOW

SA08	What is the number of full-time staff employed by your ULP/UKPBJ?	1. ⌊_⌊_⌊_⌋ people -77. REFUSE TO ANSWER -88. DON'T KNOW
SA09	What is the number of part-time staff employed by your ULP/UKPBJ?	1. ⌊_⌊_⌊_⌋ people -77. REFUSE TO ANSWER -88. DON'T KNOW
SA10	What is the number of permanent staff employed by your ULP/UKPBJ?	1. ⌊_⌊_⌊_⌋ people -77. REFUSE TO ANSWER -88. DON'T KNOW
SA11	What is the number of functional staff employed by your ULP/UKPBJ?	1. ⌊_⌊_⌊_⌋ people -77. REFUSE TO ANSWER -88. DON'T KNOW

SA12	What is the budget absorption (total procurements/total procurement budget) of your ULP/UKPBJ, in percent? By that we mean, what is the realization of **the spending of goods/services that are managed by your ULP/UKPBJ** in 2018 (in percent)?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA13	What percent of procurements process managed by your ULP/UKPBJ are **completed on schedule** (according to the timelines established in the general procurement plan)? By that we mean, what percent of your ULP/UKPBJ's past procurement tasks are completed on schedule (against the schedule outlined under the 2018 General Procurement Plan?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA14	What percent of procurements are **completed within three months**?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW

SA15	What percent of procurements are **completed within six months**?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA16	What percent of procurements are **completed within nine months**?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA17	What percent of procurements are **completed within twelve months**?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA18	What is the percentage of failed procurements that occurred due to any **process failures** during 2018?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA19	How many female staff are employed by your ULP/UKPBJ?	1. └┴┴┘ % -77. REFUSE TO ANSWER -88. DON'T KNOW
SA19.5	Has your ULP/UKPBJ adopted the **Maturity Model?**	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW

Part 2b. Administrative Structure/ULP/UKPBJ Permanency Status and Staff Professionalization (FOR ALL RESPONDENTS)

SA20.	Do you think it is important to have permanent/functional staff positions in your ULP/UKPBJ? **SHOWCARD**	**1** **2** **3** **4** **5** **Not important** **Very important** -77. REFUSE TO ANSWER -88. DON'T KNOW
SA21	Do you think permanent status for ULP/UKPBJ is important? **SHOWCARD**	**1** **2** **3** **4** **5** **Not important** **Very important** -77. REFUSE TO ANSWER -88. DON'T KNOW
SA22	Is the process for appointing new staff members gender inclusive, that is does the ULP/UKPBJ recruit or attempt to recruit women? **SHOWCARD**	**1** **2** **3** **4** **5** **Not inclusive** **Very inclusive** -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION PP. PRACTICE

Now we will ask you some questions about practices in your ULP/UKPBJ. Your ULP/UKPBJ may not be involved in or responsible for some of the activities we ask you about, or you may be unfamiliar with some of the practices we ask about. Please tell us which practices your ULP/UKPBJ uses.

Part 3. Practice (FOR ALL ULP/UKPBJ RESPONDENTS AND RESPONDENT WITH DOUBLE POSITION IN ULP/UKPBJ AND OPD/OPD).

PP01.	Does your ULP/UKPBJ use a set of Standard Operating Procedures (SOP) for the operation of ULP/UKPBJ's function?	1. Yes 3. No➔**PP03** -77. REFUSE TO ANSWER ➔PP03 -88. DON'T KNOW ➔PP03
PP02.	What areas are covered by the set of Standard Operating Procedures (SOP)? (check all that apply) **SHOWCARD**	A. Planning B. Solicitation preparation C. Reviewing and/or evaluating proposals D. Awarding contracts E. Administering and/or managing contracts W. NOT APPLICABLE -77. REFUSE TO ANSWER -88. DON'T KNOW
PP03.	Does your ULP/UKPBJ consistently gather and/or **record procurement data** (name, type, value, date, etc.) in a structured manner and have a knowledge management framework?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP04.	Does your ULP/UKPBJ use **market analysis techniques and/or past procurements** to support the writing of qualification criteria?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW

PP05.	Is **past contract performance f**actored in the qualification or evaluation process for bidders?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP06.	Does your ULP/UKPBJ apply evaluation criteria that focus on delivering value across the lifecycle of projects, **not just on lowest cost outcomes?**	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP07.	Does your ULP/UKPBJ use a standard process for contract awarding and/or contract signing which is well-documented?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP08.	Does your ULP/UKPBJ document key issues in contract administration and/or share documentation?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP09.	Does your ULP/UKPBJ use a standardized process for reviewing/providing technical inputs for contract management?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP10.	Does your ULP/UKPBJ use embedded **checks and balances** to allow the monitoring and/or control at each stage of the procurement process (including PerPres compliance)?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP11.	Does your ULP/UKPBJ use a **fair and transparent standard process and procedure** for debriefing all vendors who bid for the tender after award?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP12.	Does your ULP/UKPBJ publicly disclose tenders and/or contract awards?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP13.	Does your ULP/UKPBJ have a written policy in place to manage conflicts of interest?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP14.	Does your ULP/UKPBJ **employ safeguards against fraudulent activities**, including price collusion, bid rigging, leaking tender information, and phantom vendors?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP15.	Does your ULP/UKPBJ have a **whistleblower hotline** for all suppliers and staff to report suspicious activities?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP16.	Does your ULP/UKPBJ use a **standard contract format** that attempts to address risk appropriately?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP17.	Does your ULP/UKPBJ have strategies to reduce reliance on **monopoly suppliers?**	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW

PP18.	Does the ULP/UKPBJ have a process in place to manage the potential risk of nonperformance in awarded contracts?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP19.	Does the ULP/UKPBJ undertake financial reviews of suppliers to gauge the threat of non-performance?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP20.	Does your ULP/UKPBJ monitor "**blacklist**" suppliers to ensure that they do not contract with suppliers that have violated procedures and/or laws in other territories?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP21.	Does your ULP/UKPBJ have a written policy in place to manage environmental risk?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP22.	Has your ULP/UKPBJ undertaken an **organization capability assessment** which maps competencies of procurement staff and/or outlines the identified skill gaps?	1. Yes 3. No 6. Not involved or responsible -77. REFUSE TO ANSWER -88. DON'T KNOW
PP23.	Does your ULP/UKPBJ have a documented plan to improve the competencies of staff through a structured training plan?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP24.	Does your ULP/UKPBJ have a program in place to transfer skills between staff through mentoring?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP25.	Does your ULP/UKPBJ have a program in place which enables cross-training of ULP/UKPBJ staff and other procurement stakeholders?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP26.	Is there a reward or incentive program available for ULP/UKPBJ staff linked to performance management metrics?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP27	Does your ULP/UKPBJ have a Career Advancement Plan that has been developed and articulated to staff?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
PP28	Does your ULP/UKPBJ compare compensation externally with other ULP/UKPBJs to ensure pay competitiveness and/or equity?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION MP. DESIRABILITY AND/OR STATURE OF PROCUREMENT CAREER PATHS

Part 4. Desirability and/or stature of procurement career paths (FOR ALL ULP/UKPBJ RESPONDENTS)

MP01.	Do you intend to make a career in public procurement?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW
MP02.	How desirable is a career in public procurement overall? **SHOWCARD**	**1 2 3 4 5** **Not at all desirable … Very desirable** -77. REFUSE TO ANSWER -88. DON'T KNOW
MP03.	How competitive is pay in public procurement? **SHOWCARD**	**1 2 3 4 5** **Not competitive … Very competitive** -77. REFUSE TO ANSWER -88. DON'T KNOW
MP04.	To what extent do you feel supported administratively and legally? **SHOWCARD**	**1 2 3 4 5** **Not supported … Very supported** -77. REFUSE TO ANSWER -88. DON'T KNOW
MP05.	What is the perceived professional stature of professionals in public procurement? **SHOWCARD**	**1 2 3 4 5** **Low … High** -77. REFUSE TO ANSWER -88. DON'T KNOW
MP06.	How much are you paid annually (in IDR)?	1. Rp. ⌊⌊⌊⌋.⌊⌊⌊⌋.⌊⌊⌊⌋ -77. REFUSE TO ANSWER -88. DON'T KNOW
MP07.	Do you have an appointment to this ULP/UKPBJ (through your part time and full-time employment)?	1. Yes 3. No ➔**SECTION KT** -77. REFUSE TO ANSWER ➔**SECTION KT** -88. DON'T KNOW ➔**SECTION KT**

MP08.	For how long is your appointment to this ULP/UKPBJ (through your part time and full-time employment), in years?	1. ⌊__⌋⌊__⌋ Years -77. REFUSE TO ANSWER -88. DON'T KNOW
MP09.	Do you intend to stay for the entire length of the appointment?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION KT. INVOLVEMENT ALONG THE PROCUREMENT PROCESS CONTINUUM

Again, we will ask you some questions about your ULP/UKPBJ's involvement in the procurement process. Your ULP/UKPBJ may not be responsible for some of the activities we ask you about. Please tell us if this is the case.

Part 5. Involvement along the procurement process continuum (FOR ALL ULP/UKPBJ AND OPD/OPD RESPONDENTS)

KT01.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work participate in budgeting?	1. Yes 3. No 6. ULP/UKPBJ NOT INVOLVED OR RESPONSIBLE FOR -77. REFUSE TO ANSWER -88. DON'T KNOW
KT02.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work participate in inviting tenders for procurements?	1. Yes 3. No 6. ULP/UKPBJ NOT INVOLVED OR RESPONSIBLE FOR -77. REFUSE TO ANSWER -88. DON'T KNOW
KT03.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work participate in evaluating applications from bidders?	1. Yes 3. No 6. ULP/UKPBJ NOT INVOLVED OR RESPONSIBLE FOR -77. REFUSE TO ANSWER -88. DON'T KNOW
KT04.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work participate in selecting winners of procurements?	1. Yes 3. No 6. ULP/UKPBJ NOT INVOLVED OR RESPONSIBLE FOR -77. REFUSE TO ANSWER -88. DON'T KNOW

KT05.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work participate in administering contracts?	1. Yes 3. No 6. ULP/UKPBJ NOT INVOLVED OR RESPONSIBLE FOR -77. REFUSE TO ANSWER -88. DON'T KNOW
KT06.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work participate in measuring and/or assessing the quality of outcomes (quality of the product and/or service delivered) from the procurement process?	1. Yes 3. No 6. ULP/UKPBJ NOT INVOLVED OR RESPONSIBLE FOR -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION KW. PROCUREMENT TIMELINESS, EFFICIENCY AND RESPONSIVENESS AND LEVEL OF PROCUREMENT FITNESS TO PURPOSE

Now we will ask you some questions about the timeliness and efficiency in your ULP/UKPBJ. Your ULP/UKPBJ may not be responsible for some of the activities we ask you about. Please tell us if this is the case.

Part 6. Procurement timeliness, efficiency and responsiveness and level of procurement fitness to purpose. (FOR ALL RESPONDENTS)

KW01.	Rate the **timeliness** of procurement process in the ULP/UKPBJ OR ULP/UKPBJ with which you work. **SHOWCARD**	**1** **2** **3** **4** **5** **Not timely** **Very timely** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW02.	Rate the **time efficiency** of procurement in the ULP/UKPBJ OR ULP/UKPBJ with which you work. **SHOWCARD**	**1** **2** **3** **4** **5** **Not efficient** **Very efficient** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW02.2.	Rate the **economic efficiency** of procurement in the ULP/UKPBJ OR ULP/UKPBJ with which you work. **SHOWCARD**	**1** **2** **3** **4** **5** **Not efficient** **Very efficient** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW

KW03.	Rate the responsiveness of the ULP/UKPBJ OR ULP/UKPBJ with which you work to requests for information, clarification, and assistance with processes (in selecting the providers) **SHOWCARD**	**1** **2** **3** **4** **5** **Not responsive** **Very responsive** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW04.	Rate the quality of bidding documents received by the ULP/UKPBJ OR ULP/UKPBJ with which you work **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW05.	Rate the average **quality of bidders submitting bids for procurements** in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **goods/services/construction.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW06.	Rate the average **quality of bidders submitting bids for procurements** in the ULP/UKPBJ OR ULP/UKPBJ with which you work **for goods**. **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW07.	Rate the average **quality of bidders submitting bids for procurements** in the ULP/UKPBJ OR ULP/UKPBJ with which you work **for services.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW08.	Rate the average **quality of bidders submitting bids for procurements** in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **construction.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW

KW08a.	Rate the average **quality of bidders submitting bids for procurements** in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **consultancy**. **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW09.	Rate the average **quality of procurement outcomes** in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **goods/services/construction.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW10.	Rate the average **quality of procurement outcomes** in the ULP/UKPBJ OR ULP/UKPBJ with which you work **for goods.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW11.	Rate the average **quality of procurement outcomes** in the ULP/UKPBJ OR ULP/UKPBJ with which you work **for services.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW12.	Rate the average **quality of procurement outcomes** in the ULP/UKPBJ OR ULP/UKPBJ with which you work **for construction.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW12a.	Rate the average **quality of procurement outcomes** in the ULP/UKPBJ OR ULP/UKPBJ with which you work **for consultancy.** **SHOWCARD**	**1** **2** **3** **4** **5** **Lowest quality** **Highest quality** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER

		-88. DON'T KNOW
KW13.	Rate the average **fitness** to purpose of procurement outcomes in the ULP/UKPBJ OR ULP/UKPBJ with which you work for goods/services/construction. **SHOWCARD**	**1 2 3 4 5** **Not fit to purpose** **Very fit to purpose** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW14.	Rate the average **fitness** to purpose of procurement outcomes in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **goods.** **SHOWCARD**	**1 2 3 4 5** **Not fit to purpose** **Very fit to purpose** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW15.	Rate the average **fitness** to purpose of procurement outcomes in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **services.** **SHOWCARD**	**1 2 3 4 5** **Not fit to purpose** **Very fit to purpose** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW16.	Rate the average **fitness** to purpose of procurement outcomes in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **construction.** **SHOWCARD**	**1 2 3 4 5** **Not fit to purpose** **Very fit to purpose** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW16a.	Rate the average **fitness** to purpose of procurement outcomes in the ULP/UKPBJ OR ULP/UKPBJ with which you work for **consultancy**. **SHOWCARD**	**1 2 3 4 5** **Not fit to purpose** **Very fit to purpose** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW17.	Rate your satisfaction with the overall procurement process in the ULP/UKPBJ OR ULP/UKPBJ with which you work **SHOWCARD**	**1 2 3 4 5** **Not satisfied** **Very satisfied** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER

		-88. DON'T KNOW

KW18.	Rate your satisfaction with **quality** of bids in the ULP/UKPBJ OR ULP/UKPBJ with which you work. **SHOWCARD**	**1 2 3 4 5** **Not satisfied** **Very satisfied** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW
KW19.	Rate your satisfaction with procurement outcomes in the ULP/UKPBJ OR ULP/UKPBJ with which you work. **SHOWCARD**	**1 2 3 4 5** **Not satisfied** **Very satisfied** 6. NOT RESPONSIBLE -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION EK. LEVEL OF FRAMEWORK CONTRACTING/E-CATALOG AND PMIS AND PPP USE

Part 7. Level of framework contracting/e-catalog and PMIS and PPP use (FOR ALL ULP/UKPBJ AND OPD/OPD RESPONDENTS)

EK01.	Rate the level of **framework contracting** knowledge in the ULP/UKPBJ OR ULP/UKPBJ with which you work. **SHOWCARD**	**1 2 3 4 5** **No knowledge** **Comprehensive knowledge** -77. REFUSE TO ANSWER -88. DON'T KNOW
EK02.	Rate the level of **e-catalog** knowledge in the ULP/UKPBJ OR ULP/UKPBJ with which you work **SHOWCARD**	**1 2 3 4 5** **No knowledge** **Comprehensive knowledge** -77. REFUSE TO ANSWER -88. DON'T KNOW
EK03.	Rate the level of framework contracting use in the ULP/UKPBJ OR ULP/UKPBJ with which you work **SHOWCARD**	**1 2 3 4 5** **Never use** **Very often use** -77. REFUSE TO ANSWER -88. DON'T KNOW

EK04.	Rate the level of e-catalog use in the ULP/UKPBJ OR ULP/UKPBJ with which you work **SHOWCARD**	**1** **2** **3** **4** **5** **Never use** **Very often use** -77. REFUSE TO ANSWER -88. DON'T KNOW	
EK05	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work use Procurement Management Information System (**PMIS**) to manage any of the following functions? **(check all that apply)** **SHOWCARD**	A. Auction B. Evaluation C. Tender D. Vendor management E. Planning F. Analysis	G. Reporting H. Purchasing I. e-Catalogue J. Contract management W. NOT APPLICABLE -77. REFUSE TO ANSWER -88. DON'T KNOW
EK06	Is the ULP/UKPBJ OR ULP/UKPBJ with which you work aware of the development of a new Procurement Management Information System (PMIS)?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW	
EK07	Has the ULP/UKPBJ OR ULP/UKPBJ with which you work used any aspect of the new PMIS?	1. Yes 3. No -77. REFUSE TO ANSWER -88. DON'T KNOW	
EK08.	Has the ULP/UKPBJ OR ULP/UKPBJ with which you work engaged in any Public Private Partnership (PPP) activity?	1. Yes 3. No ☐**EK10**	-77. REFUSE TO ANSWER ☐**EK10** -88. DON'T KNOW☐**EK10**
EK09.	How many PPPs has the ULP/UKPBJ OR ULP/UKPBJ with which you work engaged in? SINCE KPBU POLICY STARTED	1. ☐☐☐ -77. REFUSE TO ANSWER -88. DON'T KNOW	
EK10.	Does the ULP/UKPBJ OR ULP/UKPBJ with which you work have any planned **PPP** activity? SINCE KPBU POLICY STARTED	1. Yes 3. No ☐**SECTION PD**	-77. REFUSE TO ANSWER ☐ **SECTION PD** -88. DON'T KNOW☐**SECTION PD**
EK11.	How many PPPs does the ULP/UKPBJ OR ULP/UKPBJ with which you work have planned currently?	1. ☐☐☐ -77. REFUSE TO ANSWER -88. DON'T KNOW	

SECTION PD. USE OF PERFORMANCE MONITORING/DATA

Part 8. Use of performance monitoring/data (FOR ALL RESPONDENTS)

PD01.	Is the ULP/UKPBJ OR ULP/UKPBJ with which you work actively engaged in procurement **performance monitoring**? For example, does your ULP/UKPBJ use a management performance monitoring system?	1. Yes 3. No ☐**SECTION TB** -77. REFUSE TO ANSWER ☐ **SECTION TB** -88. DON'T KNOW☐**SECTION TB**
PD02.	What indicators or metrics is it using to gauge performance? **(check all that apply)** **SHOWCARD**	A. Timeliness B. Efficiency C. Responsiveness D. Quality of bidding documents received by your ULP/UKPBJ E. Quality of bidders F. Procurement fitness to purpose G. Quality of procurement outcomes H. Fitness to purpose of procurement outcomes V. Others _____ -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION TB. PERCEIVED LEVELS OF BIASED OR COLLUSIVE PRACTICES

Part 9. Perceived levels of biased or collusive practices (FOR ALL RESPONDENTS)

TB01.	To what degree do you believe there is **corruption** in the procurement process in Indonesia currently? **SHOWCARD**	**1 2 3 4 5** **Never corrupt** **Always corrupt** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB02.	To what degree do you believe there is **corruption** in the procurement process in the ULP/UKPBJ OR ULP/UKPBJ with which you work currently? **SHOWCARD**	**1 2 3 4 5** **Never corrupt** **Always corrupt** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB03.	To what degree do you believe there is bias in the procurement process in Indonesia currently? **SHOWCARD**	**1 2 3 4 5** **Never bias** **Always bias** -77. REFUSE TO ANSWER -88. DON'T KNOW

TB04.	To what degree do you believe there is **bias** in the procurement process in the ULP/UKPBJ OR ULP/UKPBJ with which you work currently? **SHOWCARD**	**1 2 3 4 5** **Never bias** **Always bias** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB05.	To what degree do you believe there is **collusion** in the procurement process in Indonesia currently? **SHOWCARD**	**1 2 3 4 5** **Never collusion** **Always collusion** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB06.	To what degree do you believe there is **collusion** in the procurement process in the ULP/UKPBJ OR ULP/UKPBJ with which you work currently? **SHOWCARD**	**1 2 3 4 5** **Never collusion** **Always collusion** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB07.	To what degree do you believe there is transparency in the procurement process in Indonesia currently? **SHOWCARD**	**1 2 3 4 5** **Always transparent** **Never transparent** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB08.	To what degree do you believe there is **transparency** in the procurement process in the ULP/UKPBJ OR ULP/UKPBJ with which you work currently? **SHOWCARD**	**1 2 3 4 5** **Always transparent** **Never transparent** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB09.	To what degree do you believe that **e-procurements** are more transparent than non-e-procurements? **SHOWCARD**	**1 2 3 4 5** **Always more transparent** **Never more transparent** -77. REFUSE TO ANSWER -88. DON'T KNOW
TB10.	To what degree do you believe that **e-procurements** help reduce the opportunity for corruption compared to non-e-procurements?	**1 2 3 4 5** **Always help reduce** **Never help reduce**

	SHOWCARD	-77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION PT. KNOWLEDGE

Part 10. Knowledge about Procurement (Part 10. ONLY FOR PHASE 2 ULP/UKPBJ STAFF)

PT01.	Which of the following is not a **fundamental principle of public procurement?** **SHOWCARD**	01. Accountability 02. Competition 03. Fairness 04. Collaboration 05. Transparency 06. Honesty -77. REFUSE TO ANSWER -88. DON'T KNOW
PT02.	**True or false:** It is good practice to document evaluation findings and the basis for award **SHOWCARD**	1. True 2. False -77. REFUSE TO ANSWER -88. DON'T KNOW
PT03.	Which document would most likely **serve as an alert** to contractors, suppliers and consultants about upcoming procurement opportunities? **SHOWCARD**	A. The procurement implementation plan B. The procurement plans C. Statement of works D. General procurement notice E. Terms of reference -77. REFUSE TO ANSWER -88. DON'T KNOW
PT04.	Which of the following is **NOT** advised when developing a budget? **SHOWCARD**	A. Seek input from a specialist or a technical advisor B. Look at current data and disregard historical costs C. Review existing contracts or work orders D. Seek advice from colleagues E. Consider discrete elements of scope -77. REFUSE TO ANSWER -88. DON'T KNOW
PT05.	Which one of the following is **NOT** a solicitation document? **SHOWCARD**	01. Invitation for bids 02. Memorandum for proposals 03. Request for quotation 04. Request for proposals -77. REFUSE TO ANSWER -88. DON'T KNOW
PT06.	There are two teams during solicitation document preparation: Technical Experts and Procurement Professionals. Which of the following **tasks would a technical expert perform?** **SHOWCARD**	A. Organize pre-bid/pre-proposal conferences B. Receive and open bids/proposals C. Manage site visits D. Prepare such documents as terms of reference and specifications -77. REFUSE TO ANSWER -88. DON'T KNOW
PT07.	Which phase of the Procurement Process is Bid Receipt, Opening and Evaluation conducted during? **SHOWCARD**	01. Phase 1: Procurement Planning 02. Phase 2: Solicitation/Bid Preparation 03. Phase 3: Evaluation and Contract Award 04. Phase 4: Contract Administration and Management -77. REFUSE TO ANSWER -88. DON'T KNOW
PT08.	Which of the following stakeholders are not involved in the evaluation process? **SHOWCARD**	1. Procurement 2. Finance 3. Audit 4. Legal -77. REFUSE TO ANSWER -88. DON'T KNOW
PT09.	Costs received from a contractor must be _____ before they can be accepted by	1. Budgeted 2. In local currency 3. Inflated

	the OPD/OPD budget holder **SHOWCARD**	4. Fair and reasonable -77. REFUSE TO ANSWER -88. DON'T KNOW
PT10.	Which procurement document acts as a way of **formally communication requirements**/needs with the marketplace? **SHOWCARD**	A. Solicitation (that is to say a procurement document) B. Market Research C. Pricing D. Contract Award -77. REFUSE TO ANSWER -88. DON'T KNOW
PT11.	Which situations are best suited to a **framework agreement**? (**note all that apply)** **SHOWCARD**	A. Well-understood requirements B. Variable procurement volumes/quantities C. Complex requirements D. Large one-time procurements E. New technologies F. Simple requirements G. Fixed procurement volumes/quantities H. Implemented to guarantee a more efficient prices of goods/services, I. Guaranteed availability of goods/services which are required recurrently and in unpredicted volume or quantity at the time of contract signing, J. Payment is to be borne by OPD/OPD which is based on the assessment/ measurement of volume/ quantity of work done by the vendors in actual. -77. REFUSE TO ANSWER -88. DON'T KNOW
PT12.	True or False: Framework agreements decrease competition leading to higher prices for goods/services.	1. True 2. False -77. REFUSE TO ANSWER -88. DON'T KNOW

	SHOWCARD	
PT13.	Which of the following are examples of risks resulting from **inaccurate budgeting**? (check all that apply) **SHOWCARD**	01. Sub-standard or poor quality work 02. Large selection of bidders 03. Failure to deliver necessary requirements 04. Unclear definition of requirements 05. Lack of involvement from key stakeholders -77. REFUSE TO ANSWER -88. DON'T KNOW
PT14.	Direct costs, indirect costs, and profit are? **SHOWCARD**	1. Outputs of the cost estimates 2. Documents that are separate from the cost estimate 3. Elements of the cost estimate 4. Not factors related to the cost estimate -77. REFUSE TO ANSWER -88. DON'T KNOW
PT15.	Which of these are true about total cost of ownership? (check all that apply) **SHOWCARD**	A. Total Cost of Ownership is the total cost of owning and operating an asset over its expected period of use B. Most often calculating TCO is too expensive and not worthwhile C. TCOs allow for proper budgeting over time D. TCOs cannot be used in personal purchases E. TCO estimates are developed using a variety of input sources that normally go beyond those used in a normal cost model -77. REFUSE TO ANSWER -88. DON'T KNOW
PT16.	**True or False**: Managing requirements decreases the likelihood of a product being delivered	1. True 2. False -77. REFUSE TO ANSWER

	on time and within budget constraints. **SHOWCARD**	-88. DON'T KNOW
PT17.	What factor should **NOT** influence contract type selection? **SHOWCARD**	1. Risk 2. Price analysis 3. Particular vendors 4. Complexity of requirements and specifications -77. REFUSE TO ANSWER -88. DON'T KNOW
PT18.	**True or False**: One of the benefits of monitoring performance is that it gives the contractor an opportunity to make minor adjustments before major problems occur **SHOWCARD**	1. True 2. False -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION KS. CUSTOMER SATISFACTION/OPD/OPD SURVEY

Part 11. Customer Satisfaction/OPD/OPD Survey

(Part 11. FOR SKP/OPD ASSOCIATED WITH PHASE 2 ULP/UKPBJ ONLY)

KS01	Are you employed in a **OPD/OPD**?	1. Yes 3. No ➔**SECTION CP**
KS02	To what degree do you agree with the following statement: I understand when I should obtain advice or assistance from my working unit's affiliated ULP/UKPBJ. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS03	To what degree do you agree with the following statement: I can obtain advice or assistance from the ULP/UKPBJ easily. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS04	To what degree do you agree with the following statement: I am satisfied with the quality and accuracy of information I receive from the ULP/UKPBJ. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS05	To what degree do you agree with the following statement: I am aware of what contracts are available for my use. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS06	To what degree do you agree with the following statement: I am advised in advance of changes that are suggested by ULP/UKPBJ that would affect me. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW

KS07	To what degree do you agree with the following statement: Contracts negotiated by the ULP/UKPBJ deliver quality and value for money. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS08	To what degree do you agree with the following statement: When putting together a procurement plan, the information required is available and easy to access within my working unit. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS09	To what degree do you agree with the following statement: Actual goods or services delivered accurately correspond to my requirement. **SHOWCARD**	**1** **2** **3** **4** **5** **Strongly disagree** **Strongly agree** -77. REFUSE TO ANSWER -88. DON'T KNOW
KS10	How satisfied are you with the services provided by your working unit's affiliated ULP/UKPBJ? **SHOWCARD**	**1** **2** **3** **4** **5** **Very dissatisfied** **Very satisfied** -77. REFUSE TO ANSWER -88. DON'T KNOW

SECTION CP. INTERVIEWER'S NOTE

CP01	WHAT WAS THE LANGUAGE USED IN THE ENTIRE/MOST OF THE INTERVIEW?	00. INDONESIAN 01. BETAWI 02. SUNDANESE 03. JAVANESE 04. MADURANESE 05. SASAK 06. MANDARIN 07. MANADO 08. GORONTALO 09. BUGIS 10. MAKASSAR 95. OTHERS
CP02	WERE THERE ANY OTHER LANGUAGES USED?	1. YES, ⌊_⌋⌊_⌋, _____ (OPTION SAME AS IN CP01) 0. NO
CP03	HOW WOULD THE INTERVIEWER ASSESS THE APPROPRIATENESS OF THE RESPONDENT'S ANSWERS?	1. VERY GOOD 2. GOOD 3. ADEQUATE 4. POOR 5. VERY POOR
CP04	HOW WOULD THE INTERVIEWER ASSESS THE SERIOUSNESS OF THE RESPONDENT'S ANSWERS?	1. VERY GOOD 2. GOOD 3. ADEQUATE 4. POOR 5. VERY POOR
CP05	WHICH QUESTIONS MADE IT DIFFICULT, EMBARASSING, OR CONFUSING FOR THE RESPONDENT TO ANSWER? (WRITE DOWN THE SECTION AND NUMBER)	_____ _____ _____

SECTION	NO	INTERVIEWER'S NOTE

Annex F. Qualitative Interview Guides

Endline Interview Guide for PSU

Interview Information:

Interviewer:
Consent to interview (yes/no):
Consent to audio recording (yes/no):
Audio recording number:
Qualitative Interview ID:
Quantitative Interview ID:
Date of interview:

Informed consent script

My name is […..] and I work for SurveyMETER research firm. We are collecting information for an external evaluation for the Procurement Modernization Project of Millennium Challenge Corporation in Indonesia. We would like to interview you regarding your knowledge and experience in procurement. Our study is funded by the Millennium Challenge Corporation, an agency that provides assistance to other countries' development projects, and is being carried out by Abt Associates and SurveyMETER. The interview will not last more than two hours. As a follow up of this study, with your consent, the qualitative data collection team will visit you in the next 1 – 2 weeks for a follow-up interview.

We will pool the information from you together with information that we collect from other respondents. In total we will interview approximately 300-500 respondents. We will not disclose any information that may lead to your personal identification. However, as we administer the survey to 44 ULP/UKPBJ and OPD/OPD, there is a possibility that someone may gather that you are providing the information. We strongly request you not to disclose any illegal practices related to you or by mentioning any names.

The information that we collect from this survey is only intended for evaluation purpose and strictly kept confidential in any manners applicable by the law of The United States of America and Republic of Indonesia. Therefore, the data might be disclosed by court ruling. We will submit all the information from this survey to the Millennium Challenge Corporation, though we will omit any information regarding individual identification.

Your participation is voluntary and you can choose not to answer any question or all questions for any reason. In other words, you have the choice not to consent to participate in this survey and there won't be any consequences for such a decision. You may contact Abt or the Chairman of SurveyMETER IRB if you have any questions, feedback, or complaints about this study. If you have any questions, please do not hesitate to ask me.

Do you want to ask me anything about the interview or evaluation?

- Yes [Answer all their questions as best you can]
- No [Move to next item]

Do you agree to participate?

- Yes [Thank them and ask about audio recording]
- No [Thank them for their time, indicate result in Word file]

Can I audio record the interview? Only authorized researchers will have access to the recording for documentation purposes. The recording will be destroyed after we check our notes.

- Yes [Thank them and proceed to the interview questions]
- No [Say it is no problem and proceed to the interview questions]

Are you willing to be contacted again in the next 1-2 weeks for quantitative interview?

1. Yes [RECORD NAME TO FILL THE RESPONDENT ID LIST]

3. No [CONTINUE TO THE NEXT QUESTIONS]

QUESTIONS FOR ALL STAFF

1. Respondent characteristics and introduction

1.1. What is your title?

2. Procurement Leadership

2.1. How has the UKPBJ leadership's strategic vision for the UKPBJ changed [since 2014 for Phase 1/since 2016 for Phase 2]?

2.2. How has the level of trust and collaboration within the UKPBJ changed [since 2014 for Phase 1/since 2016 for Phase 2]?

2.3. How has the level of local political support for UKPBJ permanency changed [since 2014 for Phase 1/since 2016 for Phase 2]?

2.4. How has the level of local political support for UKPBJ independence changed [since 2014 for Phase 1/since 2016 for Phase 2]?

2.5. How has the level of authority and independence of the UKPBJ changed [since 2014 for Phase 1/since 2016 for Phase 2], if at all?

2.6. How does the UKPBJ coordinate and communicate with the OPDs?

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Local IRB contact:

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QUESTIONS FOR MANAGEMENT UKPBJ MANAGEMENT ONLY

(Head of UKPBJ/ Deputy Head of UKPBJ/ Secretary of UKPBJ/ Head of Administration of UKPBJ) [If non-management staff interview skip to Section 6]

3. Staff professionalization

3.1. Are UKPBJ staff sufficiently experienced in procurement to carry out the roles and responsibilities of their positions?

3.2. To what degree have the procurement skills and knowledge of UKPBJ staff improved [since 2014 for Phase 1/since 2016 for Phase 2]?

4. Staff professionalization for all management staff

4.1. How does the process for appointing new staff members try to be supportive of women?

5. Administrative structure/UKPBJ permanency status

5.1. How has the administrative structure of your UKPBJ has changed [since 2014 for Phase 1/since 2016 for Phase 2]? (E.G., WHERE IS THE UKPBJ SITUATED IN THE ORGANIZATIONAL STRUCTURE?)

5.2. To what degree has your UKPBJ adopted the Maturity Model?

5.2.1. If adopted, what affect has using the Maturity Model had on your UKPBJ's organizational development?

QUESTIONS FOR ALL STAFF

6. Desirability and/or stature of procurement career paths

6.1. Do you think that a career in public procurement currently is more desirable than you did in 2014? Please explain. (E.G., ADVANTAGE FOR PROMOTION)

7. Involvement along the procurement process continuum

7.1. What have been the most significant changes in your UKPBJ's involvement in the stages of the procurement process changed [since 2014 for Phase 1/since 2016 for Phase 2]? (E.G., RELATED TO PLANNING, SOLICITATION PREPARATION, REVIEWING AND EVALUATING CONTRACTS, AWARDING THE CONTRACT, ADMINISTERING AND MANAGING THE CONTRACT)

7.1.1. What led to those changes in the UKPBJ's involvement?

8. Procurement processes and outcomes

8.1. What changes in standardized processes has UKPBJ's made [since 2014 for Phase 1/since 2016 for Phase 2]? (E.G., STANDARDIZED PROCESSES FOR PLANNING, SOLICITATION PREPARATION, REVIEWING AND EVALUATING CONTRACTS, AWARDING THE CONTRACT, ADMINISTERING AND MANAGING THE CONTRACT)

8.2. What changes in policies or procedures [since 2014 for Phase 1/since 2016 for Phase 2] have led to quality improvements in the procurement process thus far?

8.2.1. What kind of quality improvements in the procurement process have there been?

8.2.2. Does it vary by the type of tender? (E.G., CONSTRUCTION, GOODS, SERVICES, CONSULTING, OTHERS?)

8.2.3. What changes could further improve quality of procurement process?

8.3. Which changes in policies or procedures [since 2014 for Phase 1/since 2016 for Phase 2] have led to a change in the number of bidders thus far?

8.3.1. Has the number of bidders increased or decreased? Why?

8.3.2. Does it vary by the type of tender? (E.G., CONSTRUCTION, GOODS, SERVICES, CONSULTING, OTHERS?)

8.4. Which changes in policies or procedures [since 2014 for Phase 1/since 2016 for Phase 2] have led to cost savings thus far? How so?

8.4.1. Does it vary by the type of tender? (E.G., CONSTRUCTION, GOODS, SERVICES, CONSULTING, OTHERS?)

8.4.2. How do you measure cost savings?

8.4.3. Has your UKPBJ's budget for tenders changed [since 2014 for Phase 1/since 2016 for Phase 2]?

8.5. Which changes in policies or procedures [since 2014 for Phase 1/since 2016 for Phase 2] have led to time savings thus far?

8.5.1. Do time savings vary by the type of tender? (E.G., CONSTRUCTION, GOODS, SERVICES, CONSULTING, OTHERS?)

8.5.2. Have these changes led to an increase in the time it takes to evaluate tenders? If yes, why?

8.5.3. Have these changes led to an increase in the time it takes to verify bidder qualifications? If yes, why?

8.6. How has budget absorption changed in the UKPBJ [since 2014 for Phase 1/since 2016 for Phase 2]?

8.7. How has the way your UKPBJ measures or assesses procurement performance changed [since 2014 for Phase 1/since 2016 for Phase 2]? (E.G., FOR TIMELINESS, EFFICIENCY, RESPONSIVENESS, QUALITY OF BIDDING DOCUMENTS RECEIVED, QUALITY OF BIDDERS, PROCUREMENT FITNESS TO PURPOSE, QUALITY OF PROCUREMENT OUTCOMES)

8.7.1. How well do you think your UKPBJ performs on these performance measures?

8.7.2. What do you think are your areas for improvement? (PROBE FOR ATTRACTING COMPETITION, POOR QUALITY BIDS, UNDERBIDDING)

8.8. What aspects of the new PMIS does your UKPBJ use?

IF DOES NOT USE THE PMIS, SKIP TO 9

8.9. What aspects of the PMIS improve UKPBJ staffs' ability to conduct procurement performance management?

8.10. How satisfied are you with the quality of the PMIS?

8.10.1. What are its strengths?

8.10.2. How can it be improved?

9. Level of framework contracting/e-catalog use

9.1. Do you use framework contracts created by LKPP? Why or why not?

9.2. Has your UKPBJ created any framework contracts to use? Why or why not?

9.3. Has framework contracting or use of the e-catalog resulted in time savings?

9.3.1. Has framework contracting or use of the e-catalog resulted in cost savings?

9.4. Has your UKPBJ engaged in any public private partnerships?

9.4.1. If yes, has the number of public private partnerships increased or decreased [since 2014 for Phase 1/since 2016 for Phase 2]?

9.4.2. What has led to the change in number of public private partnerships?

10. Perceived levels of corruption, biased, or collusive practices

10.1. How do you think the level of corruption, bias, and collusion has changed in the procurement process [since 2014 for Phase 1/since 2016 for Phase 2]?

10.1.1. What corrupt, biased, or collusive practices do you think are most common? Why?

10.2. What reforms, if any, do you believe has helped reduce the opportunity for corruption, bias, and collusion [since 2014 for Phase 1/since 2016 for Phase 2]?

11. PM Project participation

11.1. Can you describe how your UKPBJ engaged with the PM project?
[IF UKPBJ NOT ENGAGED WITH THE PM PROJECT, SKIP TO 11.3.1]

11.2. What training, mentoring, or other support did the PM project provide to your UKPBJ?

11.3. What do you think the quality was of the PM project training?

11.3.1. Did your UKPBJ receive any support from a Center of Excellence? If yes, what kind of support did you receive?
[IF UKPBJ ENGAGED WITH THE PM PROJECT, CONTINUE TO 11.4; IF UKPBJ NOT ENGAGED WITH THE PM PROJECT, SKIP TO 12]

11.4. What changes in your UKPBJ has support from the PM project contributed to [since 2014 for Phase 1/since 2016 for Phase 2]?

11.4.1. Which of these changes is most important?

11.4.2. Which, if any, do you attribute to support from a Center of Excellence?

11.5. How have you personally been affected by the PM project?

11.6. What challenges did your UKPBJ face when engaging with the PM project?

11.7. What challenges does your UKPBJ still face that were not addressed by the PM project?

12.Final Questions for all staff

12.1. Is there anything else you would like to tell us that you think is important for us to understand about the procurement process and UKPBJ operations?

12.2. Do you have any questions for us?

Thank participant for their time.

Endline Interview Guide for OPD

Interview Information

Interviewer:
Consent to interview (yes/no):
Consent to audio recording (yes/no):
Audio recording number:
Qualitative Interview ID:
Quantitative Interview ID:
Date of interview:

Informed consent script

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you have any questions, feedback, or complaints about this study. If you have any questions, please do not hesitate to ask me.

Do you want to ask me anything about the interview or evaluation?

- Yes [Answer all their questions as best you can]
- No [Move to next item]

Do you agree to participate?

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- No [Say it is no problem and proceed to the interview questions]

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QUESTIONS FOR ALL STAFF

1. Respondent characteristics

1.1 What is your title and role?

1.2 How many years have you been employed in your current position? When did you start working in procurement sector?

2. Spending Unit Perceptions about Procurement/Contracting

2.1 What are the primary challenges faced by your OPD? (AFTER INITIAL ANSWER, PROBE FOR THE FOLLOWING)

2.1.1 Cost overruns?

2.1.2 Frequent re-scoping of contracts (related to changes in coverage of works, speficication, time completion of contract, and or contract values)?

2.1.3 Funding changes?

2.2 What is the usual cause of these types of challenges?

3. Procurement Leadership

3.1 Does the ULP/UKPBJ with which you work coordinate and communicate well with your OPD?

3.1.1 How has this changed [[since 2014 for Phase 1/since 2016 for Phase 2] for Phase 1/since 2016 for Phase 2]?

3.2 How has the level of trust and collaboration between your OPD and ULP/UKPBJ with which you work changed [[since 2014 for Phase 1/since 2016 for Phase 2] for Phase 1/since 2016 for Phase 2]? PROBE:

3.2.1 Among leadership?

3.2.2 Among staff?

3.3 How has the level of local political support for ULP/UKPBJ permanency changed [since 2014 for Phase 1/since 2016 for Phase 2]?

3.4 How has the level of local political support for ULP/UKPBJ independency changed [since 2014 for Phase 1/since 2016 for Phase 2]?

3.5 Do you believe that the ULP/UKPBJ with which you work has adequate authority and independence to make the best procurement decisions? Please explain.

4. Assessing procurement process and outcomes

4.1 What are the areas of improvement needed by ULP/UKPBJ you work with related to standardized processes?

4.2 What aspect of ULP/UKPBJ performance has changed in facilitating the purchasing and procurement process [since 2014 for Phase 1/since 2016 for Phase 2]?

5. Perceived levels of corrupt, biased or collusive practices

5.1 How do you think the level of corruption, bias, and or collusion has changed in the procurement process [since 2014 for Phase 1/since 2016 for Phase 2]?

5.1.1 What corrupt, biased, and or collusive practices do you think are most common? Why?

5.2 Do you think staff involved in any of the phases of procurement believe that corrupt, bias, and or collusion are always going to happen to some extent in the procurement process? Please explain

6. PM Project Participation

6.1 Has your OPD has any engagement with the PM project?

6.1.1 (IF YES) What kind of support did you receive?

(IF NO) SKIP TO 7.

6.2 What changes in ULP/UKPBJ has support from the PM project contributed to [since 2014 for Phase 1/since 2016 for Phase 2]?

6.2.1 Which of these changes is most important?

6.3 What challenges does ULP/UKPBJ still face that were not addressed by the PM project?

7. Final Questions for all staff

7.1 Is there anything else you would like to tell us that you think is important for us to understand about the procurement process and PSU operations?

7.2 Do you have any questions for us?

Thank participant for their time.